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THE LANGUAGE OF THE SALINAN INDIANS

BY

J. ALDEN MASON

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INTRODUCTION

This study of the dialects composing the Salinan linguistic group was begun in September, 1910, when I made a visit to the neighborhood of the old Mission of San Antonio in Monterey County, where live the few remaining members of this group. Here a little work was done with the oldest member of each of the two divisions, José Cruz of the Antoniaño and Perfecta Encinales of the Migueleño dialect. An incomplete acquaintance with Spanish, the medium of communication, coupled with a lack of satisfactory interpreters and other disappointing circumstances, rendered this visit not wholly profitable. Consequently arrangements were later made by which Pedro Encinales, one of the middle-aged Indians, visited San Francisco, where I worked with him from Thanksgiving until Christmas. During this time Dr. T. T. Waterman made some researches on the phonetics of the language with the help of various mechanical apparatus. Unfortunately the informant was found to be totally ignorant of all mythology, and the few texts received from him were rather poor. The month of January, 1911, was spent in linguistic work upon the material received.

For five years I was unable to continue my researches upon Salinan, but these were again taken up in January, 1916, to continue throughout that year. A second trip was made to the region of Jolon, Monterey County. In the intervening years José Cruz and Perfecta Encinales were found to have died, but better linguistic informants were found in the persons of David Mora, a pure Antoniaño Indian, and Maria Ocarpia, a pure Migueleño. An unexpectedly good series of mythological texts were secured from these. Another old Indian, Juan Quintana, was found to be an unsatisfactory linguistic informant, but gave a number of mythological stories in Spanish, which were translated into Salinan by Maria Encinales, a sister of Pedro, and by David Mora.

Furthermore, all the extant linguistic material from other sources has been examined in the preparation of this paper. This collection was begun more than a century ago with the preparation of a vocabulary and phrase-book of the language of the Indians of Mission San

Antonio by the founder of the Mission, Fray Buenaventura Sitjar. The manuscript was sent to Washington by the indefatigable A. S. Taylor and published by J. G. Shea.¹ In 1821 Felipe Arroyo de la Cuesta, the author of the grammar and phrase-book of Mutsun, took a vocabulary from the Salinan Mission, which is preserved in Santa Barbara. A transcription was made by Gatschet and deposited in Washington. Coulter recorded a short vocabulary from San Antonio,² and Hale a short vocabulary from San Miguel.³ Yates and Gould collected in 1887 a San Miguel vocabulary, which is now in the possession of the Bureau of American Ethnology, and Alexander S. Taylor recorded short vocabularies and phrases.⁴ All of these vocabularies have been examined and compared, but with the exception of Sitjar's they are of small value.

The first really intensive and modern work on Salinan was done by H. W. Henshaw in 1884, when he was engaged in determining the linguistic affinities of the California Indians for Major Powell and the Bureau of American Ethnology.⁵ Henshaw's material was kindly loaned by the Bureau, together with all other Salinan linguistic material in its possession, and has been of great value.

Dr. A. L. Kroeber visited the region in 1902, and formulated his ideas concerning the language in a paper.⁶ Both this and his manuscript notes have been studied. The phonetic data of Dr. Waterman have also been studied and the chief results noted.

Recently Drs. Dixon and Kroeber have united Salinan with Chumash in an "Iskoman" group,⁷ which, in turn, they have subsequently come to regard as part of the Hokan family. This reclassification has been accepted by several American anthropologists and many Salinan words have been included by Dr. Sapir in his comparative paper.⁸

¹ Buenaventura Sitjar, Vocabulary of the Language of San Antonio Mission, California (*in* Shea's Library of American Linguistics) (New York, 1861).

² Coulter, Journal of the London Royal Geographical Society; copied in Transactions of the American Ethnological Society, II, 129, 1848.

³ Horatio Hale, *in* Transactions of the American Ethnological Society, II, 126, 1848.

⁴ A. S. Taylor, The Indianology of California, *in* California Farmer (San Francisco, 1860), *passim*.

⁵ J. W. Powell, Indian Linguistic Families, Seventh Annual Report, Bureau of American Ethnology, Washington, p. 101, 1891.

⁶ A. L. Kroeber, Languages of the Coast of California South of San Francisco, present series, II, 43-47, 1904.

⁷ R. B. Dixon and A. L. Kroeber, New Linguistic Families in California, American Anthropologist, n.s. xv, 647-655, 1913.

⁸ Edward Sapir, The Position of Yana in the Hokan Stock, present series, xii, 1-34, 1917.

The Salinan language comprises the two surviving dialects of the missions of San Antonio and San Miguel. These two dialects are mutually intelligible with little difficulty. Regarding the prehistoric tribal divisions, conjectures only can be made.

For all non-linguistic data on the Salinan Indians the reader is referred to my ethnological paper.⁹

⁹ J. A. Mason, *The Ethnology of the Salinan Indians*, present series, x, 97-240, 1912.

PART I. PHONOLOGY

PHONETIC SYSTEM

The Salinan dialects are characterized phonetically by a rather harsh acoustic effect. In this they differ radically from the flowing and musical Costanoan languages to the north, but bear a superficial resemblance to the Yokuts and Chumash to the east and south. The two Salinan dialects differ very slightly in phonetics, that of San Miguel being apparently more accentuated in its harsh character, possibly by reason of closer contact with the latter-named extraneous languages, or possibly due merely to peculiarities of the informant. Naturally this harsh character is far more evident when the words are given slowly with the careful enunciation inevitable to the recording of native language. In rapid speech much of this harshness, which is evidently due rather to the frequency of glottal stops and surd stops with glottalization than of guttural consonants, is softened.

The phonetic orthography used is based on the Report of the Committee of the American Anthropological Association on Phonetic Transcription of Indian languages.¹⁰ A few minor changes have been made from the recommendations of this committee to suit the peculiarities of the language and to facilitate preparation and printing.

VOWELS

Salinan appears to make use of eight fundamental vowels. These are:

- a* mid-mixed narrow. This is the broad or Italian *a* found in Spanish *cara* and approximated in English *father*. When short in quantity it approaches more closely the vocalic sound of American *not*.
- ɑ*, mid-back narrow. This approaches closely the vocalic sound of *but*. In actual practice these two *a* sounds have frequently been confused.
- ē* mid-front narrow. Nearly as narrow as English *say* and probably as narrow as Spanish *beber*. It is generally but not invariably long in quantity.
- e* mid-front wide. Like English *men*.
- ī* high-front narrow. Nearly as narrow as English *meet*; frequently long in quantity.
- i* high-front wide. As in *pretty*. The wide *e* and *i* are difficult to analyze. When quantitatively long the vowel is invariably heard as *e* and certain short vowels are invariably heard so. Other short vowels are invariably heard as *i* but the greater number are heard as *e* or *i* indeterminately. In such cases the vowel as originally written, either *e* or *i* has been retained. Palatogram tests show the closest occlusion for the narrow *i*, less for the indeterminate *e-i* and least for the wide *ē*.

¹⁰ Smithsonian. Inst. Misc. Pub., 2415, 1916.

o mid-back wide round. Intermediate wide-narrow with a greater tendency toward wideness, somewhat as in *boy*.

u high back wide round. Approximately as in *put*. The *o-u* vowels present the same difficulties as the *e-i* vowels and are frequently confused. *o* is generally certain, especially when of doubled length. Certain other vowels are heard invariably as wide *u*; these appear to be always of short length. But yet others are heard as intermediate between *o* and *u* and when of double length as an *ou* diphthong, approximately as in American *so*. As in the case of the indeterminate *e-i* vowel, this has been written as either *o* or *u* according to the auditory impression received.

a Indeterminate vowel found in Migueleño in rapid speech; related to Antoniaño *a*.

Summary:

ĩ			u
i		ə	o
ē			a
e			a

QUANTITY

Consonantal quantity is of small importance in Salinan, and it is dubious whether or not it exists. Vocalic quantity is marked and inherent in the stems and particles. Such doubled length is represented by a raised period following the vowel, as:

aː

NASALIZATION

Vocalic nasalization plays an unimportant part and is found only in connection with a nasal consonant. It is apparently more marked in the case of *m* than of *n*, but is naturally not consummated in the case of surd nasals. It is never very marked in character, but is possibly more evident in the Migueleño dialect. It is denoted by a hook under the vowel thus affected (iota subscript), as:

a̱

VOICELESS VOWELS

Vowels become voiceless, or nearly voiceless, in Salinan when final in a sentence or when following an aspiration. A different but nearly indistinguishable phenomenon is found when an aspiration, though not truly a vowel, assumes the tinge of the preceding vowel. Voiceless vowels appear to be more characteristic of Migueleño than of Antoniaño. They are distinguished by the use of small capital characters, as:

A

Weakly articulated vowels are closely related to voiceless vowels, but have a definite sonant resonance. They occur in the same positions

50. On; -ki, H. Po.; -ak, H. Ka.; -k, Y. Yu.; -k, Chin.; -akw, Wiy.; -ik, Yur.; -kut, -ka, Ath. Hu.; akaⁿ, Si. Dak.
51. Passive; -il-tx,¹⁴ Siusl.; -l, Kwak.; -l, Kut.; -l, Ath. Hu.; -l, Y. Wap.; -l, Sa.; -l, M. Choe.; -l, Zap.; -l, Nah.; -t'i, Pai.; -it, P. Yok.; -etu, H. Po. (R); -tū- (middle voice), Al. Fox; -t, Iro.
52. Passive; -k, H. Sal.; -k (passive participle); H. Po.; -k, Y. Wap.; -k'w (passive participle), Tak.; -ku, Kwak.; -qa, Pai.; gu, Al. Fox.
53. Passive; -p, P. Miw.; P. Cost.; -ime, Siusl.; -ap, H. Sal. (passive reflexive); -yem, Co.; -ma', Tak.; -me, Y. Wap.; -pi, Pai. (passive participle); -pi, Si. Dak. (passive participle).
54. Past tense; -k, P. Miw.; P. Cost.; -yak, P. Mai.; -kun, P. Mut.; ga-, Chin.; -ke, H. Po.; -qa, Pai.; -ki, Si. Win.; x, Maya; k-, Zap.; gi-, Al. Ojib.; kits, Yur.; uks, Cad.
55. Past tense; o-, Tling.; o-, Y. Wap.; o-, Ath. Hu.; o-, Mixe; o-, Nah.
56. Past tense; -ta, P. Miw.; P. Cost.; -to, H. Sal.; -at, H. Ka.; -ta, Y. Wap.; -ta', Tak.; -etl, Sa.; Lā, Tsim.; -ul, Kwak.; -t, Chin.; -tea, Pai.; te, Si. Pon.; -ee,¹⁵ Si. Win.; du, Tling.; tuk, M. Choe.; Le, Wiy.
57. Plural; ūn, Siusl.; -ya, H. Po.; -i, Y. Yu.; -ū (reflexive plural) -i, P. Yok.; -yu, Ath. Hu.
58. Plural; -e, H. Ka.; -s, Y. Wap.; -e, Chin.; -s, Iro.
59. Plural distributive; -tx, Siusl.; -t, H. Sal.; -da, H. Was.; ta-, Wiy.; it, Tak.; -tl, Sa.; de-, Tsim.; -t, Chin.; -to, P. Mai.; te-, Ath. Hu.; -ti, Pai.; -t-, Si. Bil.; t'e, Si. Pon.; tak, Maya; -d (in verbs), Al. Ojib.; -ta, Cad.; -te-, Y. Wap.
60. Plural; -el, -l, H. Sal.; -l, Tsim.; -l, Ath. Hu.; -le, Y. Wap.; -n, Al. Ojib.
61. Plural; -me, P. Cost.; -ma, H. Po.; -em, Kwak.; -ma, Chin.; -mi, Pai.; -ma (plural animate object), Si. Pon.; -pi, Si. Dak.¹⁶
62. Plural; -ke, P. Miw.; -k, H. Po.; -kie, H. Was.; -uks, Sa.; -k', Kwak.; -ike, uks, Chin.; -kī, -k, Ath. Ka.; -qan, -ik, Kut.; -qa, Pai.; ga-, Tsim.; ge, Si. Pon.; -ke, Al. Ojib.; -ka, Cad.; -ke, Iro.
63. Passive prefix; t-, Siusl.; t-, H. Sal.; do-, H. Po.; te-, Y. Wap.; ad-, Ath. Hu.; t'a-, Si. Dak.; -ta (?), Cad.
64. Passive prefix; m-, Wiy.; me-, Y. Wap.; m-, Si. Dak. -
65. Potential; -ni, P. Miw.; P. Mai.; -ni, Si. Dak.; -nū, Ath. Ka.; -ni, Nah.; -ni, Zap.
66. Present tense; -n, Siusl.; -ya, Y. Wap.; -i, H. Was.; -a, H. Po.; -yi, Pai.
67. Quickly; dji-, Tling.; djiⁿ, Si. Win.
68. Reflexive; -po, P. Miw.; -pu-, -mu, P. Cost.; -muxe (reciprocal), mai', Y. Wap.; -vani, H. Ka.; -ap' (reciprocal), Kwak.; -me'k, Kut.; vī, Pai.; ma-, Nah.; -wa-, -pa-, Si. Win.; -wi, Wiy.; wi-ti, Cad.; ib, Maya.
69. Reflexive; -an, Tak.; -naw (reciprocal), Siusl.; na-, Tsim.; n-, Pai.; d-, r-, Si. Win.
70. Subordinating suffix; -ye, Ath. (Nadene ge); -yi, Tling.; -ga, Si. Win.; -qa, Pai.; -gun, H. Ya.; gu-, Wiy.; -x, Kwak.
71. Suffix indicating "times" for numerals; -ita, Siusl.; -ta, Ath. Ka.; ta, Y. Wap.; -yit, Kut.; -ta, Pai.
72. To; -t, H. Sal.; -d-, Tak.; -t, Chin.; -tu, Y. Wap.; -ta, Si. Dak.; -d, Nadene (S); -tu, Cad.; t-, Iro.

¹⁴ On Frachtenberg's authority.

¹⁵ Winnebago *e* corresponds to Sionan *te*.

¹⁶ Dakota *p* goes back to Sionan *ʔm*.

73. Transitive suffix; -t, Co.; -d-, Tak.; -t-, Y. Wap.; -d, Tsim.; -L-, Ath. Hn.; -ta, Si. Dak.; -du (?), H. Po. (R); -d-, Kwak.; -t-, (?) Al. Fox.
 74. With; -ti, Y. Wap.; -de, Tsim.; -tin, Hai.; -L, Ath. Hn.; -ni, Zap. (R); -ne, Iro.
 75. Verbalizing suffix; -äi, Siush.; -e, H. Po.; -a, Kwak.

NOUNS

1. Arrow; na-tsés, Ath. Hn.; zi-e, Ath. Mon.; tsapi, Wiy.; sa'a, H. Chim.; tsu, H. Po.; me-tse, Y. Wap.; tee-mo, yatei, P.; teoar, Sa.; atūs, Al. Cree; tal-d-shi,¹⁷ Lut. Kla.; ts'i-talén, Hai.; han-tlem, Kwak.; ts'hate, Nootka; tlók, tats'omen, Sa.; os-ki (?), M. Choe.
2. Belly; bu-s, P.; bü-t, Ath. Be.;¹⁸ bunn, S. Hopi; ben, Tsim.; iffu-ka, M. Choe.; miss-ad, Al. Ojib.
 k'en, Sa.; ik-pi, Si. Dak.; ika, H. Sal.; k'ita, Y. Wap.; nka-sh, Lut. Kla.
3. Bird; teil-teil, P.; dila, H. Chim.; tsita, H. Po.; tsitsa, Y. Wap.; izitka-dan, Si. Dak.; detta-ni, Ath. Mon.; hushi, M. Choe.; teite, Maya; totli, Tling.; tsöwots, Tsim.; ts'ekō, Kwak.; tsuts-kie, Wiy.; k-ontities, Iro.;¹⁹ teika-sh, Lut. Kla.
4. Blood; sak, sede, P.; sitsü, H. Chim.; ez, ödj, Uto-Aztecan; teheke-lli, Lut. Kla.; ei, Tling.; sill, Sa.; issish, M. Choe.; aye, Y. Yu;
 te-l, Ath. Mon.; itle, Tsim.; wa-do (?), Al. Ojib.
 kue-tl, Sa.; gai, Hai.; kawi-k, Wiy.
 uñwe, S. Hopi; wan-mo (?), Kut.; we, Si. Dak.
5. Bone; te'ei, ts'ix, P.; tsita, Y. Wap.; hu-txun, H. Chim.; ts'un-ne, Ath. Be.; siñ-p (?), ciao, Sa.
 iaqa, S. Hopi; a'o, S. Gitanemuk; o'o, Pai.; qak, Kwak.; k'ō-kōtl,²⁰ Sa.; ka-n, Al. Ojib.; kako, Lut. Kla.; xan-ein, Sa.²¹
6. Bow; tlk'et, Hai.; hau-ktak, Tsim.; tlkues, Kwak.; k'tsōite, tágoats, laq'n, Sa. t'ño, Kut.; dayap, lawan, P.; atehabiy, Al. Cree; auta, uts, S.; t'i-n, Ath. Mon.; ita-zipa, Si. Dak.; nte-ish, Lut. Kla.
7. Boy; man; xai, Ath. Hn.; kowi, Wiy.; kawi, H. Po.; k'eo, Y. Wap.; k'aina, koteo, P.; kwi, Ath. Mon.; qea, kwiti, S.; gyi-t, Hai.; qapqo,²² Kwak.; ak'im, Maya; kiwi-süns,²³ Al. Ojib.
 tei, H. Po.; teaki, Lut. Kla.; wi-ta, P.; iöot, Tsim.; teöi, tuot, Sa.; staha-tl, Kut.; ath, Nootka; hotein, S. Win.; hata-k, M. Choe.
8. Brother (elder); guäi, Tling.; wegy, Tsim.; gyüi, Kwak.; k'oa-lm, k'atek, Sa.; ki, Iro.
 ta-ka,²⁴ P. Mut.; ito-l, H. Po.; ete-he-le, Ath. Mon.; teinye, Si. Dak.
9. Canoe, boat; yauk, Tling.; -qsa, Tsim.; -qs, Kwak.; qu-tl, Sa.; keye, Y. Wap.; kula, M. Choe.
 tlön, Hai.; ttsi, Ath. Mon.; yak-tsomitl, (?) Kut.; towi, H. Sal.; wa-ta, Si. Dak.; tei-man, Al. Ojib. (-man is a nominal suffix).
10. Cold; siat, Tling.; ts'at-it, Sa.; atho, Iro.; ts'at-el, H. Sal.; *axate'a, H. (S); edza, Ath. Mon.; soni, Si. Win.; ze, Nuh.; hoteuk-wa, M. Choe.
 ska, Lut. Kla.; quí, Hai.; qkuatko, Tsim.;²⁵ qüi-tl, qe-tl, Sa.; skät'ei, Kut.; ge-ts, Wiy.; ka-dj, Al. Ojib.

¹⁷ Shi is a nominal suffix.

¹⁸ Isolated by myself.

¹⁹ K- is a nominal prefix corresponding to Algonkin gi-, Kutenai, aq-.

²⁰ Reduplicated stem.

²¹ ein is a noun ending.

²² Reduplicated stem.

²³ -süns is a diminutive.

²⁴ ka is a noun suffix isolated by myself.

²⁵ Reduplicated stem.

11. Deer, elk; tee, Si. Win.; thez-il, Ath. Mon.; teisk, Tling.; siän, Tsim.; tlols, Kwak.; shua-i, Lut. Kla.; tlales, Sa.;²⁶ tante, P. Win.;²⁷ tso-toko, Y. Wap.; se, Maya; isi, M. Choe.; bi-ee (?), H. Po.
12. Ear; oteo, P. Cost.; ea-m,²⁸ H. Chim.; atoa, Kwak.; tawa-k, Al. Ojib.; ahonta, Iro.; tl'ä-na, Sa.; edza, Ath. Mon.; tse-ma, Y. Wap.
gyü, Hai.; k'öä'a-na, Sa.; g'o kont,²⁹ Kut.; hak-lo, M. Choe.;³⁰ nakaz, Nah.; noye, Si. Dak.
13. Eye; hin, eo, se, sa, P.; sot, H. Chim.; ui, hui, H. Po.; isi, ix, Uto-Aztecian; ie-ta, Si. Dak.; ehiluk, (?) M. Choe.; hutsi, Y. Wap.; hu-l, Y. Yu.; ite, Maya; osh-kinji, (?) Al. Ojib.; ena>*eta (?), Ath. Mon.
14. Fire; xon, kon, Ath. Be.; qu, Pai, yu, Si. Dak.; ho, xo, H. Po.; haiuk, Sa.; ki-nk'ö'k'o,³¹ Kut.; ishkote, Al. Ojib.; he-l, Y. Wap.; sa (?), P. Mai.
lak, Tsim.; luak, M. Choe.; inik, Nootka; nēiq, Sa.
tle, Nah.; ito, M. Choe.; da-, Si.; tewi, Lut. Kla.
apu, H. Chim.; pe-te, S. Win.; pe-tl, Nah.; me-s, Wiy.
15. Foot; ko, P.; ke', Ath. Be.; hokya, Si. Hopi; ka-ma, H. Po.; ko-kue,³² Kwak.; sqa-n, Sa.; teka-te, Wiy.; oku-d, Al. Ojib.; ka-s, Cad.
ti, P. Cost.; tea-de, Ath. Be.; ontsa (knee), Iro.; tsaka, S. Gitanemuk; teuk-sh, Lut. Kla.; si, Tsim.; dji-ein, Sa.; sak, Kut.; siha, Si. Dak.; osi-d, Al. Ojib.; us, Cad. asi, Iro.
hupo, P.; pe, Y. Wap.; pet-ch, Lut. Kla.
16. Girl, woman; tea'e, Y. Wap.; atsyä, H. Po.; ttse, Ath. Mon.; cätq, Tling.; ista, Iro.; sihua-tl, Nah.; iskwe, Al. Cree; shiwa-ga, Lut. Kla.; wi-tein, Si. Dak.; dja, Hai.; tsētaq,³⁴ tlotsma, Nootka; sātltq, eiäktee,³³ Sa.; ötē (?), Kut.; wa-teer, Wiy.
17. Hair; ana, P.; hia, Si. Win.; hima, H. Chim.; hini, S. Hopi; e, hee, H. Po.; haihte, Kwak.; hishi, M. Choe.; oshkin-jig, Al. Ojib.
ethi, Ath. Mon.; ma-ne (?), Lut. Kla.
18. Hand; isk, P.; ea (arm), H. Po.; sia-pe (?), Kwak.; shak-ba (?), M. Choe.; a > *sa (?) (arm), Si. Dak.
hita, H. Chim.; la', Ath. Be.; tana, H. Po.; djin, Tling.; odja, Sa.; otehi-tji, Al. Ojib.; -odja, t'ä-lö, Sa.; an'on (?), Tsim.; ka-ka (arm), Y. Wap.; na-pe, Si. Dak.; ne-p (?), Lut. Kla.
uku, P.; kilh, aqa-n, Sa.; gēi, Kut.
mo, Pai.; ma, Tanoan; me, Y. Wap.; ibba-k, M. Choe.; mā, P. Mai.; we-s, Wiy.
19. Head; to-l, teo-l, P.; teo-, Pai.; tsī' Ath. Be.; ei-na, xi-ya, H. Po.; hi-ma, H. Chim.; sāia (face), Kwak.; tsa-l (face), Tsim.; eti-gwan, Al. Ojib.; teli-sh, Lut. Kla.
moo-c, Sa.; emē (face), Kwak.; pa, Si. Dak.; an-umpa (?), M. Choe.; po-l, Maya; ma-l, Huave; ba-l (hair), Wiy.; pu-ks, Cad.

²⁶ Reduplicated stem.²⁷ Reduplicated stem.²⁸ Noun suffix.²⁹ Reduplicated stem.³⁰ -lo is probably a noun suffix.³¹ Reduplicated stem.³² Reduplicated stem.³³ Reduplicated stem.³⁴ Reduplicated stem.

20. Hill; domi-t, P.; tepe-tl, Nah.; mual, paau'a, S.; paiyi, H. Po.; mō-ta, Y. Wap.; paha, Si. Dak.; hō-kko, M. Choe.; s-mant, Sa.; awu, H. Chi.; p'ō, Tanoan.
teo-l, P.; wa-djiw, Al. Ojib.; 'edje, Ath. Be.
s-qu est (?) Tsim.; g'ō-kwis, Kwak.; s-kum, Sa.; xi-s, Ath. Ka.; eia, Tling.; xe, Si. Win.
21. Ice; teaṛa, Si. Dak.; t'ek, Tling.; ot'en, Ath. Mon.; dāu, Tsim.; t'loq, Kwak.; tanō, Sa.; ok-ti (?), M. Choe.
k al-ga, Hai.; gut, Kut.; s-qoi-nt, Sa.; kōuq, Kwak.
22. Land, earth; ama, H.; oma, Y. Wap.; ma, Si.; mōi, Sa.
tsuwut, Pai.; dzūatseks,³⁵ Tsim.; tso, Y. Wap.; otle-s, Ath. Mon.
tḡa, Hai.; t'ekya, Kwak.; kai-la, Lut. Kla.; ak'i, Al. Ojib.
23. Liver; hucī, H. Chim.; zū-t, Ath. Be.; eu la, H. Po.; salla-kha, M. Choe.; hon (?), Y. Yu.
ku-lla, P. Miw.; kō-k, Y. Wap.; kō-n, Al. Ojib.
24. Moon; op, P.; nō-yawa, S. Hopi; pi (sun), Si. Dak.; heo, Zap.; p'ō, Tanoan; poo, Mixe (R); po, Maya; shpa-sh, Lut. Kla.
25. Moccasins; titl, Tling.; ts'ā-oqs, Tsim.; tlek-cin, Sa.; tlan, Kut.
k'e, Ath. Mon.; k'ena-q, Kwak.; k'en-q, Sa.
26. Mouth; ea-ma, ce-ma, P.; shu-m, Lut. Kla.; hawa, H. Chim.; ha, habo, H. Po.; za', Ath. Be.; osa, Iro.; su-ms, Kwak.; so, Tanoan (R); ju, tsua, Zap. (R); odo-n (?), Al. Ojib.; tsu-tsa, sō-sen,³⁶ Sa.; wi-teai, Si. Dak.; ita-kha, M. Choe.
k'a, Tling.; qē-t'pa, Hai.; ku-t'laq, Tsim.; k'a-thuma (?), Kut.; akau, Cad.; hu, Maya, a, Zap. (R), i, Si. Dak.
moa, Pai.; apa, M. Choe.
27. Nail; soki, Pai.; sakta, Lut. Kla.; tleqs, Tsim.; tsem-tsem, Kwak.; te'atle'a,³⁷ Nootka; atakal, M. Choe.; ete, H. Po.; ti, pitei, P. Miw.; teu-e, Y. Wap.; tu-s, Ath. Mon.
kus, Y. Yu.; gōu-kp, Sa.; okatau, Si. Dak.; me-tkan, Wiy.; oshkanj, Al. Ojib.
28. Night; ṛel, Nadene (S); gela, Zap. (R); kawulu, P. Miw.; dugal, S. Tüba-tulabal; ka'was, Si. Win.
diwe, duwe, H. Chim.; tibi-k, utenwa, Y. Wap.; uteu, Si. Catawba.
hauhe, Si. Win.; hime, H.
29. Nose; huk, sin, son, P.; hoxu, H. Chim.; ju, Zap. (R); ds'ak, Tsim.; ni-ts'a, Kwak.; odja-ni, Al. Ojib.; teos, Cad.; p-shi-sh, Lut. Kla.
kun, Hai.; kuk-tsafila (?), Kut.; oski-wan, Al. Cree; equ, Sa.
la, H. Po.; tlo, Tling.; tere, Al. Wiy.
won, Ath. Be.; poṛe, Si. Dak.; maq-sin, Sa.
30. Old, old person; itrine-ulla, H. Chim.; cōn, Ath. Be.; c'a-k, Si. Win.; t'schi-ka, Lut. Kla.; chikki, M. Choe.; bu-sa, bu-teeki, H. Po.; ki-tei, Al. Ojib.; akaio n (?), Iro.
31. Rain; upa, P. Win.; ma-k, Y. Wap.; wa-s, Tsim.; mi-tla (?), Nootka; umba, M. Choe.; maṛa, Si. Dak.; gi-miwau, Al. Ojib.; we-sh (ice), Lut. Kla.
sēn, Tling.; tee, H. Po.; teiē-tl, Sa.; shi-t, Ath. Mon.

³⁵ Reduplicated stem.³⁶ Reduplicated stems.³⁷ Reduplicated stem.

as voiceless vowels, and the difference may be purely fortuitous. They are represented by superscript vowels of a smaller font, as:

p^a

ACCENT

Stress accent is quite noticeable in Salinan, and appears to be inherent in the roots and particles and inexplicable by any rules. Frequently, however, a word bears primary and secondary stress accents of nearly equal force which may be confused. Primary stress accent is denoted by an acute accent mark, secondary accent by a grave accent mark after the vowel thus stressed, as:

a', a'

Pitch accent is found, but is not of morphological significance; it is likewise inherent in certain syllables, generally of particles and grammatical elements. Thus the proclitic *tám*, "then", and the enclitic *tón*, "again", generally bear an inflection of a slightly higher pitch. Such is marked by an acute accent mark over the vowel, as:

á

It appears to be more characteristic of the Migueleño dialect.

Hesitation in the flow of voice and in general any interruption between two normally connected sounds is represented by a period separating these elements, as:

a.i, m.o

This is frequently indistinguishable from and confused with a weak glottal stop.

Aspiration, when distinct from or weaker than the aspirate *h*, is denoted by a reversed superscript comma, as:

m'

CONSONANTS

The general rules of phonetic orthography employed in the writing of vowels are followed also with consonants. Thus small capitals are used for the voiceless or surd forms of consonants normally voiced, and superscript characters for those which are abnormally weakly voiced.

Semi-vowels

y, *ɣ*, *w*, *w* The semi-vowels *w* and *y* are both employed.

y is probably always a resultant from an *i* glide preceding another vowel, and is generally initial or intervocalic; it is rare. The voiceless *ɣ* is even rarer.

w on the other hand appears to be a fundamental sound, the occlusion being firmer than with the vocalic *u*. The voiceless *w* is rare. Both *w* and *ɣ* appear to be more common in Migueleño.

Nasals

m, *M*, *n*, *N*, *η* The bilabial and the linguo-dental nasals are frequent in Salinan but the palatal nasal is rare and of secondary production. *n* is very dental in place of articulation. Final *m* and less frequently *n* often occur with simultaneous glottal occlusion; in such position they are purely sonant.

Nasals are found as sonant, partially surd and entirely surd. It is most probable that these are merely variations from one fundamental sound affected by phonetic laws, but a few aberrant forms hint that possibly two fundamental elements should be recognized. In intervocalic position the nasals are purely sonant; in initial position the kymograph records show them to be frequently unvoiced during a large part of the attack; in final position they are shown to be unvoiced during the latter half of the occlusion. As members of consonantal combinations they partake of the nature of the companion sound, being sonant when in combination with another sonant, slightly unvoiced when preceding a surd and almost entirely unvoiced when following a surd, particularly an aspirate. The pure surd forms are very rare and found only in exceptional conditions. These kymograph results are compiled from records of a number of cases but the individual records vary greatly; it is difficult to find any two exactly alike.

Laterals

l, *L* The lateral *l* sounds are articulated in practically the same place as the English *l*, i.e., they are linguo-alveolars. The voiceless form seems, according to the palatogram records, to require a more extensive occlusion than the sonant. In final position, sonant *l* is frequently accompanied by a simultaneous glottal stop.

As in the case of the nasals, two forms are distinguished, the sonant and the surd, with intermediate variants. All these are probably derivations from one fundamental element through the operation of phonetic laws. Thus intervocalic *l* is invariably sonant, as is medial *l* in combination with a sonant. All other cases display varying amounts of surdness and sonancy with the exception of initial *L* before a surd which is purely surd. The surd character generally proves less by experiment than by auditory impression and the same is true of other elements which vary between surd and sonant. The surd character may possibly be slightly accentuated in the Miguileño dialect.

Spirants

φ, *β*, *γ*, *s*, *c*, *x*, *h* The voiceless bilabial spirant *φ* and its voiced correspondent *β* are developed from the intermediate stop *p* in rapid speech. *φ* develops when *p* is followed by a surd, *β* when it is followed by a sonant or a vowel. The palatal sonant spirant *γ* is a similar development from the intermediate stop *k*.

The linguo-dental and the linguo-alveolar sibilants *s* and *c* approximate the sounds *s* and *sh* in English. Palatograms of these sounds show a slight difference in place of articulation, that of *s* extending a little farther forward than that of *c*. There is probably less difference between these two sounds than between their correspondents in English. Both

occur only as surd except that the sonancy of a contiguous sound may intrude very slightly upon them.

The palatal spirant *x* has been frequently confused with the glottal spirant *h* or '*h*'. *x* appears to occur more often with nominal and verb stems and other important elements, *h* more often with particles, pronouns and elements of lesser importance. *x* is articulated rather gutturally; its harshness is most accentuated in final position, less in initial position, and least in medial position. It is invariably surd.

Stops

Stopped consonants are found in Salinan in three fundamental varieties and in five positions. These are: intermediate surd-sonant, aspirate and glottalized; bilabial, linguo-dental, linguo-alveolar, palatal and glottal. In the latter position, only one variety is possible. The intermediate form furthermore varies as sonant, pure intermediate and surd. The kymograph records display all five varieties. In the case of the sonants, sound vibrations commence before the release from the occlusion; these are rare. In the case of the intermediates sonancy commences at the moment of release. With the surds, sonancy begins an appreciable moment after release, during the rise of the oral needle. In the case of aspirates sonancy begins after a marked expulsion of breath, at the crest or during the fall of the oral needle. In the case of glottalized stops the glottis is closed at the time of oral occlusion and the larynx raised to cause a compression. The oral occlusion is then released, causing an explosion of the compressed air, the glottis is subsequently released and voice follows. The explosion, though very marked auditorily, makes little impression on the kymograph.

b, *B*, *p*, *p'*, *p''* The bilabial stop occurs in the three fundamental and two derived forms above mentioned. In the surd-sonant forms it is difficult to decide which of the three is fundamental; the ear hears most often unaspirated surds while the kymograph detects all three forms with a preponderance of intermediates. Pure sonant *b* has been found only in the case of the demonstrative article *pe*, but many times in this case, both as initial and intervocalic. It is furthermore frequently reduced to the spirant *v*. But other records detect it as intermediate or, rarely, as surd in identical positions. Records of all other words show either intermediacy or surdness, frequently with a slightly noticeable hiatus between release and sonancy. In final position the kymograph shows no release, though the ear imagines one; the occlusion is generally long and firm. The same phenomenon occurs when an intermediate stop is the first member of a consonantal combination.

The symbol *B* (intermediate) has never been used in the accompanying forms and texts, the symbol *b* (sonant) but rarely.

The aspirate *p'* is normally less marked than in English but occasionally as much so; it is of less frequent occurrence than the unaspirated surd. There is a longer hiatus between the release and the commencement of sonancy during which breath, possibly modified by glottal stricture, is released.

The glottalized *p''* is the explosive articulation common to many Pacific Coast languages. It is not frequent in Salinan nor of marked force, except in emphatic utterance.

t, t', t'' In the linguo-dental series the tip of the tongue is pressed against the roots of the teeth. There appear to be no sonants and marked aspiration and glottalized forms are rare. By far the greater number of cases are intermediates or unaspirated surds. The hiatus following the glottalized form is very slight.

r, r', r'' The linguo-alveolar stop is one found in many Californian languages. The place of articulation is slightly more alveolar than for the dental but the difference is caused more by the manner of release than by place of articulation. The occlusion is firmer and more extensive, the release slower, causing a semi-affricative effect approximating *tc* and *ty*. It is practically identical, however, with the English combination *tr* but more truly affricative, a simple sound. The sonant variety is unknown in this position also, the most common forms being the intermediate and the unaspirated surd.

In rapid speech in initial and intervocalic position, this form is frequently reduced to the rolled *r*. In the former case this is as in English, untrilled, the tip of the tongue merely approaching the roof of the mouth, but in the latter case there is a single flip of the tongue as in the Spanish single *r*. The palatogram record shows the typical grooved *r* occlusion.

The other varieties, the aspirate and the glottalized articulations, need no comment. Both are pronounced more strongly than is the case with the dental *t*.

g, g, k, k', k'' In point of articulation the palatal stops are approximately the same as in English, but may be a little more guttural, particularly when preceding a back vowel, in which cases *q* was sometimes written in text.

As with the other stops, the fundamental varieties are intermediate, aspirate and glottalized. But as with the bilabial stop, pure sonants and surds are also found. The former has been met with in the case of only one particle, but frequently in this case, that of the particle *gas*. This is always heard either as sonant or as voiced spirant. All other cases are either intermediate or unaspirated surd.

The aspirated and glottalized forms require no comment except that the former is occasionally reduced to the spirant *x* under favorable conditions. They are not forcibly articulated.

* The glottal stop is of a rather different nature from the other stopped consonants in that it frequently modifies and accompanies them. It may occur in medial or final position or simultaneously with certain other consonants, particularly nasals and laterals, but is never initial. In final position it is of marked strength, but less so medially. Frequently also it occurs simultaneously with a vowel in which case the vowel is weakly rearticulated following the stop. This gives a strangled effect to the vowel. Frequently it has been difficult to decide whether a glottal stop is present or whether there is merely a hiatus which should be expressed by a period.

Affricatives

ts, ts', ts'' The affricative *ts* is found most frequently in the glottalized form, the sibilant following the stop without hiatus and before the release of the glottis. As such it is very marked. It may also occur as unaspirate and aspirate but examples are few and equivocal.

tc, *tc'*, *te'* The affricative *tc* is less common than *ts* in the glottalized form, and is less forcibly articulated. It occurs most commonly as surd with slight aspiration; both unaspirate and aspirate have been written but are probably variants of one form.

TABLE OF SALINAN PHONETIC SYSTEM

	Labial	Dental	Alveolar	Palatal	Glottal
Semi-vowel					
Sonant	w		y		
Surd	w		y		
Nasal					
Sonant	m	n		ɲ	
Surd	m	n			
Lateral					
Sonant			l		
Surd			l		
Spirant					
Sonant	β			ɣ	
Surd	φ	s	c	x	h
Stop					
Sonant	b			g	
Intermed.-surd	p	t	t̚	k	
Aspirate	p'	t'	t̚'	k'	
Glottalized	p'	t'	ˀt'	k'	
Affricative					
Surd		ts	te		
Glottalized		ts'	te'		

PHONETIC PROCESSES

Phonetic processes on the whole are not of great importance in Salinan, and the few found seem to be more or less sporadic and not amenable to formulated rules.

VOCALIC ASSIMILATION

The stem vowels of certain words undergo a modification and change in inflection and conjugation, apparently not in accordance with any rule, as:

t̚-a-m	house	t̚-e-m	with possessive prefix
		-om	with 2 plural possessive
		-im	with possessive (S) ¹¹
akata	blood	ekata	with possessive
a-xak	bone	exak	(S)
xuteai	dog	xosten	plural
		-iteo	with possessive
t-e-ik	knife	t-e-a-k	(M)

¹¹ (S) denotes data taken from Sitjar's Vocabulary; (A) Antoniano dialect; (M) Migualeño dialect; when not otherwise noted, forms are from the dialect of San Antonio.

The initial vowel of stems commencing in a vowel is ordinarily assimilated or contracted to the vowel of the prefixed pronominal possessive. Thus in the second person plural the stem vowel is assimilated to *o*:

t̚-a-m	house	t̚-e-mo	his house
epxo	his mother	t̚'k-omhaL	your houses
t̚m-itax	thy urine	t̚'k-opex	your mother
t̚m-ik'es	thy robe	t̚ok-otax	your urine
t̚-a-k'at	wood	t̚'k-ok'es	your robe
		t̚k-o-k'at	your wood

Occasionally similar changes are found with other prefixes, as:

t̚-itol	brother	t̚-atol	our brother
ek-o	father	t̚m-ik	thy father
t̚-iken	nest	oken	nest? (interrog.)
m-ieim	drink!	k-ostem	drink! (pl.)
		tiṭ-acim	to drink

SYNCOPE

Syncope is commonly employed in Salinan. An unaccented short vowel frequently is so reduced as to be practically or entirely non-existent. It is difficult to determine except by mechanical experimentation whether the vowel is entirely lost or only abbreviated. After an aspirate it generally becomes a surd vowel, in other cases weakly articulated or entirely lost. Some examples are:

spanat	hide	sapanto	its hide
awaten	flies	awatneL	flies
t̚-opinito	fat	t̚-upento	fat
t̚-icok'alo	ear	t̚-ick'olo	ear
sukai-lo	lungs	skoilo	lungs

The majority of cases of syncope are of the vowels *e* and *i*.

REDUPLICATION

Morphological reduplication is absent, but lexical reduplication is found in certain cases, principally with animate nouns. Such are:

te'enteem	bat
teikteik	fish-hawk
tsiuntsin	sand
nene'	grandmother
tata	father

ONOMATOPOEIA

Stems of onomatopoeic nature are rare and are confined to names of animals with a characteristic cry, as:

teikteik	fish-hawk
kak'a	crow

METATHESIS

Metathesis, although of rather frequent occurrence in Salinan, is probably of secondary nature. The majority of cases are of the initial syllable *le*.

lemem'	bee	elmi'm	bee (S)
leat'	duck (M)	elpat'	duck (M)
eik'nai	fish-spear	sk'in-ai	fish-hook
simtan	children (S)	sme-ten	children (M)
lice	winter, year	elei'tanel	years

DISSIMILATION

Dissimilation is practically negligible in Salinan. But one case was noted:

mamampik	pull it out!	kamant'apik	pull them out!
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The occasional reduction of stops to spirants has already been noted under the head of phonetics. *p* is reduced to *v* and *p'* to *f*; *k* to *γ* and *k'* to *x*.

ELISION

A few cases of elision have been found which might better be interpreted as the reappearance, when in expanded form, of a lost final consonant. Thus a final nasalized vowel will be expanded to vowel plus *n*.

keteq'a'	great	ṭiketca'no	his size
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Similarly the final *p* of a stem in the Migueleño dialect, which is normally lost or replaced by a glottal stop in the Antoniaño form, frequently reappears in the latter dialect when the stem is expanded.

ṭixe'xe'	feet	ṭixe-ple'to	their feet
texa'	stone	texa'panel	stones

PHONETIC DIFFERENCES IN DIALECT

At the present time the Salinan language is spoken in two slightly variant dialects, mutually intelligible on short acquaintance, but it is probable that the former divisions of the stock were different.¹² The few surviving members of the stock have intermarried to such an extent that no purity can be claimed for either dialect. Dr. H. W. Henshaw was informed in 1884 that only five natives spoke the San Antonio dialect in its purity, the speech of the others being more or less tinged with the characteristics of the Migueleño idiom. Never-

¹² *Ethnology*, p. 104.

theless certain regular differences may be determined by a study of the forms of the dialects in bulk.

The general phonetic differences of the dialects have already been noted; the probable greater harshness of Migueleño and the use of the indeterminate vowel *ə* being the most evident.

The most striking lexical divergence between the two groups is that a *p* in Migueleño, in any possible position, is frequently lost in Antoniaño or replaced by a glottal stop. A few of many examples are:

<i>Antoniaño</i>		<i>Migueleño</i>
ae	elk	p'ae
a'kata	blood	pakata
axa'k	bone	paxa'k
at'	oak	p'at'
as	son	p'as
ʔexa'	stone	exap
ka'	acorn	k'ap'
tits'e'wu	tail (his)	ʔits'e'p
t'icele'	finger nail	ieilip
ʔixe'wu	foot (his)	ʔixe'p
ʔaa'	deer	ʔaa'p
sa'nat'	hide	spanat
lea't'	duck	elpa't'
ʔ'a'ak	head	ʔo'paka
ʔa'ai'	ashes	ʔop'ai

But:

epxo	mother (his)	e'xo'
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The Migueleño final *p* frequently reappears as *w* in the Antoniaño form of the 3d singular possessive, as shown in two of the above examples. Its reappearance as *p* has already been noted (p. 15).

Stems in Antoniaño frequently possess a final *a* not found in the Migueleño forms. Whether the latter have lost an original final vowel or the former added a suffix is not apparent.

<i>Antoniaño</i>		<i>Migueleño</i>
ta-ma'	men	ta-m
le'ma	sky	lem
pena'na	milk	pena'n
ʔo'kena	day	ʔo'ken
tuipe'ya	raft, boat	tuwipe'
tapleya	fire-drill	tenep'e'
teala	blackbird	teal

But:

ʔ'a'ak	head	ʔo'paka
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Antoniaño forms occasionally possess a final *n*, missing in Migueleño, as:

awa'ten	fly	a-we-te'
stan'	leaf	sta
k'enin	acorn bread	k'one'
saiya'n	rainbow	saiya-pa'

All of these forms are more or less doubtful.

An intervocalic *n* frequently disappears in Antoniaño, as:

sam'	cat, lynx	snam
sai'yu	eagle	snai
tekalt	eggs	tetek.nel
taple'ya	fire-drill	tenepde''

Practically every stem differs in some characteristic in the two dialects, but these differences seem to be generally irregular and not amenable to or explicable by any rule. Even those given above are more or less problematical, and, with the exception of the frequent loss of the Migueleño *p*, all seem to be contradicted by as many or more exceptions than examples.

PART II. MORPHOLOGY

In general characteristics Salinan bears a superficial resemblance to certain Californian languages, but differs radically from the synthetic languages of certain other parts of North America. Its most striking feature is its apparent irregularity combined with comparative morphological simplicity. It is with the greatest difficulty that any given element is isolated and assigned a definite idea. In its irregularity and comparative simplicity it gives an impression very much like the English, that of a language which has become simplified and lost much of its grammatical mechanism, and which in this process has achieved considerable irregularity.

There is on the whole an absence of the polysynthesis characteristic of many American languages; most of the different elements of language are denoted by means of independent words and the nominal and verbal complexes are comparatively simple. The great mass of diverse sentiments are expressed by independent roots of restricted meaning rather than by a modification of roots of rather vague signification by means of etymological and grammatical particles.

The various morphological processes are accomplished by means of prefixes, suffixes, and infixes.

ETYMOLOGY

The usual Salinan root may consist of any number of syllables of any phonetic constitution. The normal root is confined to one of the several parts of speech, as noun, verb, adjective, pronoun, adverb, or particle. Others may function in two or more categories, generally by reason of slight changes in form by means of suffixation of etymological elements.

NOMINALIZING SUFFIXES

Verb stems are nominalized by the suffixation of certain elements, as:

1. *-i, (M., wci), nominalizing, abstract.*

met'ik-i'	race	k-mit'ik	run
ti-kauw-i	sleep	kau	sleep
k'a'L-i'	a fight	k'a'aL-a'	fight
p-etak-i'	the making	p-eta'ko	make

ts'en-li'	amusements	k-ts'e-n-u'	enjoy
lam-a-i'	food	k-lam	eat
lam-a-u' wɪ	food (M)		
t-iei-wai	draught (M)	k-iei-m	drink
ye'te-we''	earthquake (M)	yi'te''	quake
t-oxoyota-i'	life (M)	k-o'xoyo.ta-p'	live

This is probably the same as an abstract nominalizing suffix given frequently by Sitjar as *ya* or *y'a*.

t'upint-e'y'a	corpulence	topinit-o	fat
tipn-iy'a	pain (in abstract)	tipin	pain
t-anim-ike'ya	pardon	k-anem	give pardon
t-ake-uwa'y'u	his thirst	k-ake-a'	be thirsty
t-alil-k-e'ya	question	p-ale'l-ek	ask
t-atsinte-ey'a	unction	k-atsinte-a	anoint

When suffixed to adjectival stems the particle appears in the form of *-ni'*.

xumo-ni'	quarrel (M)	xomo	quarrelsome, mean
ts'ep-ha-ni'	thanks	ts'ep	good

2. *-t'e, -t'ee, -a-t'e'e, agentive.*

ki'-kau-yel-a-t'e'e'	great sleepers	kau	sleep
ke''-kau-iy-a-t'ee	sleepers		
k-liexai-t'ie	rain-maker	liexai	rain
k-icim-t'e	drinker	icim	drink
k-amt'a-t'ee	hunter	amt'e	hunt
k-amt'i-t-ewan	fisher	amt'e-ewan	hunt fish
k'-malox-a-t'ee	jumper	malox	jump

Another but rarer agentive form seems to be:

3. *-mak, agentive.*

k-ateen-mak	robber	aten	rob
k-ae-tel-m-il-ak	speakers	as	speak
k'-La'm-m-a-il-ak'	eaters	lam	eat

Other apparent nominalizing etymological suffixes, examples of which are not sufficiently frequent to warrant classification, are:

ta-lam-xat	food	lam	eat
pa-xat'	dance	pa-ka, pa-ta	dance
t-a's-e-tiL	language	as	speak
ti-kak-oL	song	ka-k'a	sing
t-eta''ak-oL	fire-drill	eta''ak-o	make, do
t-itsipx-aiut'i	rebirth (S)	etseipex	be born
macal-a'k	morning star	maca-L	burn
macal-e'	flames		
moe''	charcoal		

Other miscellaneous and occasional suffixes are affixed to nouns and modify their sense in various ways; some of them might be interpreted differently had we more complete data. Thus certain cases may really be examples of nominal stem composition, the combination of two nominal stems.

t̚-ema-i-e	village, <i>rancheria</i>	t̚-ema	house
exap-alat	pebble	exap	stone
skoi-kne'ya	beard	sxkoi''	beard
sul-at	animal's testicles	sol	testicles
cowa-to	poison of snake	cowa	skunk
hu-ma't' al-ta	white people	ma't' al	white
kesiyu'k-la	sweetness	kesiyu'k'	sweet
t̚'o-l	heap	t̚'o-i	mountain
lua-nelo	slave	lua	man
lua-nilayo	overseer	lua	man
t̚-i-xe-xe'	tracks	t̚-i-xe	foot
skan-iltai	rib	skan	belly
axak-elteya	rheumatism	axak	bone
ti-tea-wen	foam	t̚ea	water
ti-exo-kutein	mud		
ea-tole	dew		

VERBALIZING SUFFIXES

Certain elements are occasionally suffixed to nominal stems to change them to verbs which predicate actions or conditions intimately connected with the sense of the nominal stem. There are two important and unequivocal suffixes of this class as well as several more or less uncertain.

A suffix of not absolutely definite significance appears to denote possession of the noun, or to predicate the action or condition expressed by it. It may possibly be akin to the abstractive prefix no. 1.

4. -a, -i, *possessive, attributive*.

k' sotoṃn-e	have a guardian	sotoṃn-o	guardian
k' -co'wa-n-i	catch fish	ewa-n	fish
k' tsaxel-e	snow	tsa'xeL	snow
te 'umya-le'	freeze (?)	te 'umyeL	ice
ts'a'k' aiye-e	blow	ts'a'k' ai	wind
k' akat-e	be bloody	akata	blood
k' -epx ai	have a mother	epax	mother
k' -ek-e-l-e	have a father	ek	father

The particle is found frequently in Sitjar:

akut-k'at-e	not grassy	k'at	grass
ke teka'lt-e	have eggs	tekalet	egg

The suffixes *-uc* and *-ni*, of which examples are given below, evidently carry a similar signification and probably are related.

litse-we-ko	marry a woman	litse	woman
luwa-we	marry a man	luwa	man
k-lua-ni	marry a man	lua	man
lewa-sai-ni	married man	se	wife

The second suffix predicates the manufacture of the noun thus qualified.

5. *-te, -tene, -ate, manufacture.*

ke-selko-te-ne	make a fence	selko	fence (Sp. <i>cerca</i>)
(ke-selk-ne)			
k'-co/huk'-te-ne	make holes	co/huk'	holes
m-isxa'-te-L	urinate!	ʔ-isxaiL	urine
hek-upint-ate	I fatten myself	upinit	fat

A few other cases of apparent verbalizing etymological suffixes, taken principally from Sitjar, are:

ʔaa'k-a	nod	ʔ'a'k-o	head
k-upint-emak	eat fat	ʔ-upinit	fat
ʔam	hunt pinenuts	ʔo	pinenuts
ʔo-we	fetch pinenuts		
timmy-ak	convene	timuy-o	meeting
sol-eko	feel genitals	sol	genitals
ke-cetene-no	fetch branches	cetene	branches
sen-eu	marry a woman	sen	wife
saiyan-emo	marry a woman		

ADJECTIVIZING SUFFIXES

A few cases have been found in which suffixes appear to form adjectives from nominal or other stems:

taka-lau	capable	taka-t	trade, work
k-exak-op	bony	axak	bone

NOMINAL ETYMOLOGICAL PREFIXES

Several elements of definite meaning are prefixed to nominal stems and qualify their meaning; it is possible that these are petrified examples of nominal stem composition:

6. *tee-, ee-, etc-, old, aged.*

etelu.wa''	old man	lu-wa''	man
teilu.wai''	old man (M)	lu-wai''	man
elte''	old woman	litse''	woman
teene''	old woman (M)	lene''	woman

7. *il-*, *l-*, *seasonal*.

ilpal, lpaL	spring (summer)
ilne', ile'	summer
ilka-p	autumn
iltee	winter

A few other sporadic cases have been found which may be interpreted either as unusual prefixes or, probably more truly, as examples of stem composition:

tetsas-kap	acorn-meal	kap	acorn
tne-paku	upper arm	puku	arm
ma-poko	thigh	puku	arm
we-lak'	world	lak'	ground, land

GRAMMATICAL STRUCTURE

NOUN AND VERB

As with every language, the important parts of Salinan speech are the noun and the verb. These are never combined as with many American languages, and the stems are normally different and unrelated. Those cases in which nominal and verbal stems are connected have already been considered under etymology. Neither nouns nor verbs are subjected to a great amount of morphological modification and inflection. On the contrary, the majority of inflections, declension, and conjugation are expressed by means of independent adverbs and particles. The stem is modified in very few directions, but these are for the most part very fundamental and frequent, affecting practically every stem.

Plural

One of the most striking peculiarities of Salinan is the development of the plural. Every noun, verb, and adjective must display in its form its number, the plural of the verb conveying ordinarily the idea of repetition as frequentative or iterative, and frequently implying plurality of the pronominal subject or object.

The methods of plural formation fall into several different types, but the details are very variant and almost inexplicable. The two principal methods are by suffixes and by infixes. As subdivisions may be differentiated the various elements employed, which are, generally speaking, composed of one or more of the three elements *t*, *n*, and *l*.

The majority of stems permit of but one plural form, and it seems to be impossible to determine which of the many types of plural formation any given stem will follow. But certain other stems permit

of several different forms, according to the several types of plural. It is probable that each of them carries a slightly different significance, such as distributive and iterative, but it has not been possible to differentiate them according to meaning. Thus the following plural forms of one stem, claimed to be of identical meaning, were given:

ta-m	house	ta-ma'-nel ta-melax ta-ma-tén temhal ta-ma-tenáx ta-ma-niláx ta-ma-niltén
exoxo'	brain	exoxa'lax exotenax exoten
ixexé'u	foot	ixexepa'l ixexé'xe' ixexé-ple't

Similar varied plural forms are found with certain verbal stems, though possibly in less degree:

a-m(k)	kill, be able	a-mkxe'lk a-mt'elik a-mxot'e
amaue	guard, preserve	amaulic amaucelte amaucelayo

Most of these varied forms are from Sitjar, suggesting that the different classes of plural formerly had an active functional value, but that these have now become lost or static, resulting in great irregularity. An insight is given into the solution of the problem by the following excerpt from Sitjar:

kaxo'-ta	A man hunts an animal
kaxo'-ten	A man hunts many animals
kaxo-to'ta	Many men hunt an animal
kaxo'-nilet	Many men hunt many animals

The various types of plural formation with their elements are:

8. *-tcn*, *iterative plural*.

The suffix *-tcn* possibly should not be regarded as a true plural, but generally functions as such. Suffixed to either nouns or verbs, it means "another", "again", and evidently carries an iterative significance. In the example given just above from Sitjar it denotes plurality of object and singularity of subject, one of the phases of the

iterative, but examples taken from linguistic texts do not support this explanation. This particle generally carries a slightly raised pitch accent, *-tén*. Thus:

wa'kiṭ	wakiṭ-ten	frogs
a'xa-k	a'xa-k-tén	bones
tateuanil	tateuanil-ten	stars
keta	keta-ten	big
<i>kristia'no</i>	<i>kristiano-ten</i>	Christians
	ta-sko'meuka-'yi'k-tén	but do not tread again
	k'al-ten-a	we will fight again
	p'ola-'tke ten	he freed him again
	ṭa-'mulox-ten	he jumped again

When other nominal suffixes or inflections are used with this plural the plural sign precedes such endings, as:

kotos-na	kotos-ten-na	noises
oxot-o	oxot-ten-o	his testicles

Two other pluralizing suffixes are evidently akin to the suffix *-ten*: *-tenax* and *-tenat*. These are used solely with nominal forms, and principally with names of animals. They occur rarely.

9. *-tenax, nominal plural.*

ṭail-tenax	fleas
ṭamul-tenax	pumas

10. *-tenat, nominal plural.*

map'-tenat	rabbits
ska-k'-tenat	crows
as-tenat	elks
lk'a'-tenat	coyotes
lua'-tenat	males
tama-tenat	men
asak-tenat	flints
ts'akai'-tenat	winds

A large class of nouns, many apparently irregular, form their plurals by the suffixation or infixation of a particle containing an *n* element, frequently also with a *t* element, and probably related to *-ten*.

xute	xosten	dogs
celṭe	sle-ten	old women
teini'	teinten	old women
saxe	saxtin	birds
simla'	sem'ta'n	boys
litse''	le'tse-n	women
lene''	le'ntsen	women (M)
ṭ'o s	ṭ'os-en	brothers

ʔetiya	ʔetiyeŋ	arrows
ts'axe'L	ts'ax-an-eL	snows
teumieL	teumi-an-eL	ices
kiyo'te'	kiyo't-n-e'	shake
ko'yi'	ko't'ne	reply

The plural suffix *-lax* is also used solely with nouns or adjectives. Like *-ten*, it is of very frequent occurrence.

11. *-lax, nominal plural.*

ʔepen-lax-o	his belly
ʔopoi-lax-o	his knees
ketpoi-lax	cedars
ts'open-lax	spiders
ke'-kau-iatce-lax	sleepers
k'paʔ'-lax	hard
kesiyuk'-lax	sweet

Occasionally *-ax* is used alone. Compare the *-ax* of *-ten-ax*.

t'katn-ax-o	anuses
k'-ts'ep-ax	good

Another very common class of plural suffixes is that ending in *-el*. There are several varieties of this suffix.

12. *-el, -nel, -anel, -nanel, -tel, plural.*

-el alone is comparatively rare.

teak-el	knives
smat-el	beautiful

A far more common suffix is *-nel*:

elk'a-nel	coyotes
tik'e-nel	lice
ʔelek-nel-o	their months
ʔetalak-nel-o	his horns
at-nel	acorns
apek-nel-op	good

-anel is probably a phonetic variation of the above:

ʔ'elow'-a'nel	storms
ʔitol-anel	brothers
sa'iy-anel	eagles
texap-anel	stones

-nanel is occasional:

eskaiya-nanel	raccoons
ʔoolec-nanel	squirrels
cumk'om-o-nanel	squirrels

-tel is occasional:

to'kena-tel	days
smakai-ya-tel	nights
ka'tel	acorns

Apparent phonetic irregularities in the use of this suffix are:

tepaL	tepa'neL	tongues
ta'kat	ta'k'anel	sticks
toxo	toxo-lanel	wolves
taasx-o	taasx-aknel-o	livers
lice'	elei'-tanel	winters
akata	akat-nel-o	bloods
taa''	taa'-tneL	deer
at'	at-nelat	acorns
ka'	ka-t'-nelat'	oaks

Many verbs also form their plurals by the addition of a suffix which contains the element *l*; these forms are undoubtedly related to the nominal plural forms in *-el*. The vowel of this verbal suffix is very variable.

kae-il	sit down
ka'mes-il	call
kaiya-L	go
lam-x-al	eat
yom-al	see
pamaŋ'-el	chase off

A probably related element is the suffix *-let*, containing the same sound *l*; it is found most frequently with nouns, occasionally with verbs.

13. *-let, -clct, plural.*

topok-let-o	his arms
exak-let	bones
sk'ot-elet	serpents
ticok'al-et-o	his ears
itol-ilete	brothers
tipxat-elt-o	his entrails
k'wak-elt-a	long
kak'-elt-a	sing

Seeming irregularities in the use of plural suffixes involving the element *l* are:

maŋ'-elak	animals, meats
tiexe-p-lip	feet

Probably related to the suffixes in *l* are the pluralizing infixes in *-l-*. These are found more commonly with verbs, less often with nouns.

The element, generally in combination with a vowel, is interpolated within the apparent stem of the word, generally before the final vowel or before the last syllable.

14. *-l-, -il-, -el-, -al-, plural.*

texiwa ^{iy} -o	ṭexiw-il-aiy-o	their hearts
ts'waketi''	ts'waket-il-i'	hats
hak'i	hak'-el-i	bows
makawi''	makaw-il-i'	flowers
kateenmak	kateenm-il-ak	robbers
k'pat'ak	k'pat'-il-ak	dancers
kLe'tax	kLe't-al-ax	sharp
takat	tak-el-at-o	trades
	t-al-akat-o (S)	
kaua	kau-la	be robust
ka-set	ka-s-il-e	name
katsintea	katsinte-el-a	anoint
k'al ⁱ '	k'al-el-i'	fight
xata	xat-L-a	weep
k'miṭ'ik	k'miṭ'-L-ik	run

Judging from Sitjar's example above quoted, it would seem that this element denotes plurality of subject and object. Other examples refute this hypothesis. Minor irregularities in the use of the *-l-* infix are:

ke'o	ke-la'-o	knuckles
epeselet	epesel-elm-et	enemies
inexa'	ine-lk-xa	parents
anemtak	anem-til-tak	pardon
komop	kom-ol-op	finish
k'al ^a La	k'al-el-a'-kot	fight
paiteeko	paite-ilt-eko	visit

The iterative phase is most commonly expressed by the infix *-t-*, generally with accompanying vowel. As in the case of *-l-*, it is normally interposed before the final vowel or syllable of the stem. It is found with both nouns and verbs, but far more frequently with the latter. It is very common. Sitjar's example above quoted would seem to suggest that this infix denotes plurality of subject with singularity of object. Certain other examples dispute this, as, for instance:

pa'le'ltko	he asked them several times
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15. *-t-, -te-, iterative plural.*

kola'le'	kola-t-Le'	penises
teṭeyini''	teṭeyi-ti-nai	arrows
kaxap	kaxa-te-p	corpse, dead
ṭikelele	ṭikelil-t-e	round

kwi'le'	kwi'l t-e'	straight
kma'lox	kma'l t-ox	jump
ma-	ma-te-le'	carry
keo'lukne	keo'luk-te-ne	make holes
mamampik	kaman-t'a-pik	take out
anem	ane-te-m	remain
tas-il-o	tas-t-il-o	names
pale'lko	pa'le l-t-ko	inquire

In a few cases, principally of nouns, the plural is formed by the infixation of an aspirate *-h-*, frequently with repetition of the stem vowel.

16. *-h-*, plural.

t-a' 'k-o	t-ahak-o	heads
to-le't-o	le'het	teeth
me'n-o	mehen-o	hands
sokent-o	sukehenet	eyes
kau	kaxau	sleep
k-na'ye'	k-na'hye'	yank away
k-La'm-aiyak	k-Lam-ahyak	eaters

Plurals which apparently follow none of the above categories are:

t-e-nt-o	xenet	teeth
taken	ta'nta	shamans
lua	lua-yato	males (S)
teluui	eteluui	old men (M)
stelnwa'	steluwi'	old men (A)
koiyakten-o	lokoiyini	beards
sla'	sla'at	basket
istau''	iskun'ta'm	girls
stexa'	senta'n	boys
<i>kuwaiyo</i>	kuyata	horses
ats-o	its-ak-o	<i>presas</i> (S)
titen-o	titen-ak-o	breasts (S)
ateaka	ateakoi	times (S)
kla	kLapat	broken
ts'epen	ts'epeyitini	small
k'tai	k'taiyai	stink
liyax	litax	shoot
m-icim	k-ostem	drink
komiyota	ko'kiutne	lie down
k'se'yine	k'se'ne	walk

The foregoing examples demonstrate the great irregularity and complexity as well as the great importance of the Salinan plural. It is not impossible that a very intensive study might elucidate phonetic laws governing these cases, and also assign various significations to the different classes; at present the irregularity would seem to be due to historical or other fortuitous causes unexplainable without an extended comparative philological study.

THE NOUN

The Salinan noun invariably stands in independent position; it is never incorporated in the verb and is seldom used in apposition to any particle in the verbal complex. It is varied in form only for plural number and possessive case and in certain etymological relations. Gender and the other grammatical cases are expressed by independent means. The etymological and plural modifications have already been treated; it remains to consider pronominal possession and one other minor grammatical phenomenon.

NOMINAL PREFIXES

One of the most puzzling and equivocal features of Salinan is a prefix *t-*. It stands in close analogy to the verbal prefixes *p-* and *k-*, to be considered later. It is prefixed to most nouns derived from verbs, and on this account should possibly be considered as an etymological element were it not for the fact that practically all other etymological elements are suffixed. Moreover, it, or a similar prefix, is found with most pronominal possessive prefixes and with certain forms of the verb. Examples of *t-* as a nominalizing prefix are given below; its other functions will be considered later.

17. *t-*, nominal prefix.

t-olol-a 'iyo	his flute	k-o'lol-i'	play flute
t-olal-a 'iyu	his shame	k-o'la 'le'	be ashamed
t-a's-o	his name	k-as-et	be called
t-eexai	dawn	k-eexai	to dawn
ti-ka'kel	song	ka'k'a	sing
t-au-yi	heat	k-au-yak	be hot
t-alel-k-eya	question	p-alel-k-o	ask
t-atce-x	seat	k-atce-k	sit down

With certain nominal stems, principally those denoting terms of relationship, a prefix *a-* is found, which seems to have no definite significance unless it may be an abstract possessive form. Many of these are forms taken from Sitjar, the same stems occurring in modern usage without this prefix.

18. *a-*, nominal.

a-ton-o	his younger sister	ton'	my younger sister
a-pe-u	his elder sister	pe	my elder sister
a-tos-o	his younger brother	tos	my younger brother
a-kay-o	his elder brother	kai	my elder brother

a-xalan-o	his grandfather	xa'la	my grandfather
axomo	foster father		
apai	mother		
ama	grandfather		
asa'k'o'	uncle		
a-kom-lua'we	unmarried woman	lua''	man
a-lua nil-ayo	overseer	lua''	man
a'teloi	friend		
a-laxam	door, entrance		
a-mis-'ayo	mass (Sp. <i>misa</i>)		

PRONOMINAL POSSESSION

Pronominal possession is expressed by the prefixation, or in certain persons the suffixation, of elements only distantly related to the independent forms of the personal pronouns. The prefixes are closely welded to the nominal stem and the combination is normally without phonetic change, except as noted below. The elements of the first and second persons are prefixed, those of the third person suffixed. The pronominal possessive prefixes with examples are given below; they are practically identical in the two dialects.

Singular	
1	(t)-
2	tm-, tum-, tme-
3	(t)——o
Plural	
1	ta(t)-
2	tk-, tuk-, tko-
3	(t)——ot, (t)——o

Nominal stems beginning in a consonant require little comment. The bare stem expresses the first person singular possessive, the bare stem with suffix *-o* or *-ot* the third personal possessives. The other persons take the prefixes *tum-*, *ta-*, and *tuk-*:

sa.'nat'	my hide	ta-sa.'nat'	our hide
tumsa.'nat'	thy hide	tuksa.'nat'	your hide
sana'to	his hide	sana't'ot	their hide

Stems ending in *-a* normally change this to *-o* in the third person:

t'me.'ma	thy house	te-mo'	his house
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The suffix *-o* of the third person generally takes the stress accent and stems ending in *-o* distinguish their third personal possessives by this method alone.

ta.'mo	my boss	tu-mo'	his boss
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Stems ending in *-i* take a *y* glide before the *-o* suffix; stems ending in *-u* take a *w* glide.

ʔololi'	my flute	ʔolola'yo	his flute
ʔu	my face	ʔu·wo'	his face

Nominal stems commencing in any vowel except *a-* take the nominal prefix *ʔ-* (no. 17) in the first and third persons. In the case of the first person plural this follows the pronominal *ʔa-*, forming the prefix *ʔaʔ-*. Thus in every case the first personal plural possessive form is equivalent to the first personal singular form plus the prefix *ʔa-*. The accent generally falls on this prefix. In the second person nominal stems commencing in vowels take the possessive prefixes *ʔm-* and *ʔk-*.

It will be noticed that the prefixes of the second person invariably contain the initial sound *ʔ-* (frequently heard as *t-*). As this element is not found with the pronominal forms of this person in the other classes, it is probable that this is the same nominal prefix *ʔ-*.

ʔu	my face	ʔaʔu	our face
ʔmu·	they face	ʔku	your face
ʔu·wo'	his face	ʔuhe'not	their faces

Except in the cases of stems commencing in *a-* and monosyllabic stems, the initial stem vowel is dissimilated to *e-* in the case of the second person singular and *o-* in the case of the second person plural; this suggests that these vowels are intrinsic to the pronominal forms. Cf. the stem for "dog", absolute *xute*:

ti'teo	my dog	ʔa'tite	our dog
t'me'teo	thy dog	t'ko'teo	your dog
ti'teo'	his dog	ti'teot	their dog

Nominal stems commencing in *a-* display several irregularities. They retain this vowel unchanged in the second personal forms. Certain examples take the nominal prefix *ʔ-*:

ʔa·k	my head	ʔa'ʔak	our head
t'ma·k	thy head	t'ka'k	your head
ʔa'ko	his head	ʔa'kot'	their head

Others do not take this prefix:

a'xak	my bone	ʔa'xak	our bone
tuma'xak	thy bone	tuka'xak	your bone
axa'ko	his bone	axa'kot'	their bone

It is probable that those which do not take the nominal prefix are either reduced from an original initial *pa-* (p. 16), or else composed with the nominal prefix *a-* (no. 18).

In the third person plural an optional form is the use of the singular suffix *-o* followed by the appropriate independent pronoun *heyo't*, "they". It is possible that the difference between these two forms may be that between the normal possessive and the distributive. But examples are equivocal, as:

t-ete-a't-o	their dogs
t'-e.'te-ot	every one's dog
t-e.'m-ot	their house
epoke't-o-t'	every one's hair
luwuy-iy-a-t-o	their respective husbands

In the first and last examples there seems to be a suffix *-a-t* employed. Another element of similar portent seems to be a prefix *ku-*:

ko'-ote-te'	every man's dog
tat-ku'-kuwai	every man's horse

The suffix *-t'ye'* in such instances means each:

ko'-ote-te'	every man's dog
pa.'ka-t'io'	each cow

The adjective pronouns "mine", "thine", etc., are supplied by the independent forms, generally with the substantive verb appended.

PRONOMINAL SYSTEM

The pronouns function in the Salinan dialects in independent and affixed forms, the latter being closely welded to the stem. There are several different series of forms, more or less divergent, but in the majority of cases displaying some resemblance *inter se*.

INDEPENDENT PRONOUNS

The independent pronouns occur mainly as subjective, less often as emphatic or appositional forms for the objective or possessive. The forms in the two dialects differ to some extent:

<i>Singular</i>	<i>Antoniaño</i>	<i>Migueldiño</i>
1	he.'k' (kek)	k'e'
2	mo'	mo'
3	heyo''	heo'
<i>Plural</i>		
1	ha.'k' (kak)	k'a'
2	mo-m	mom
3	heyo.'t	hewo.'t

These independent forms are frequently affixed to the verb as enclitics or proclitics to represent the subjective relation; they will be more thoroughly treated under the caption of verbs.

The other forms of the personal pronouns function as true prefixes or suffixes, integral elements of the complex in which they stand. The possessive nominal prefixes have already been considered; the objective suffixes will be treated under the analysis of the verbal complex. It remains to consider a special oblique or locative form.

LOCATIVE PRONOUNS

These are a special group used only after locative prefixes or prepositions. They show for the most part genetic relationship with the independent forms, but are somewhat variant. The form of the second person plural is not absolutely certain, for lack of sufficient examples. The forms employed are:

<i>Singular</i>	
1	k'e
2	me
3	ke'o
<i>Plural</i>	
1	k'a
2	ko
3	kewa'L

Thus:

tewa'kok'e	near me
akeme'	where art thou?
mmke'o	up to him
mmp'ak'a	beyond us
akeamko	where ye will be
makewa'L	to them

TABLE OF PRONOMINAL FORMS

Although some of the forms of the personal pronoun have not yet been considered, a table of the various forms is appended below for purposes of comparison. It will be seen that, though there is a superficial resemblance between all classes, yet the variations are great. Practically every form shows resemblance with some other, yet it can not be said that any of the classes fall together as opposed to others, except, of course, the enclitic and proclitic forms of the independent. The objective and possessive forms are possibly the more variant.

<i>Singular</i>	<i>Independent</i>	<i>Proclitic</i>	<i>Objective</i>	<i>Locative</i>	<i>Possessive</i>
1	he'k	e	ak	-k'e	.....
2	mo'	m	ka	-me	ʔum-
3	heyo''	.....	o, ko	-keo	-o
<i>Plural</i>					
1	ha'k	a	t'ak	-k'a	ʔa-
2	mom	(om)	t'kam	-ko	ʔuk-
3	heyo't	.....	ot, kot	-kewa'L	-ot

THE VERB

As with most American Indian languages, the Salinan verb is the crux of the sentence, but it does not play the all-important part that it does in many of them. The Salinan verb normally displays within its complex the number of the pronominal subject and the number and person of the pronominal object. It may also show certain etymological and modal phenomena, but tense only incidentally.

The etymological relations have already been considered, as has the question of the number of the verbal stem; the other relations remain to be elucidated.

The verbal stem is modified by prefixes, infixes, and suffixes, to a lesser extent by the affixation of enclitics and proclitics. The infixes are concerned exclusively with pluralization and have been already considered; the prefixes express the principal modal qualifications, the suffixes the lesser ones. The various appurtenances of the verbal complex: proclitics, prefixes, suffixes, and enclitics will be considered in this order.

PROCLITICS

For the sake of convenience in nomenclature, certain preposed elements are termed "proclitic" in order to distinguish them from the modal prefixes. In certain respects, however, as they are never found independently and may carry the accent, they might better be termed "prefixes of the first class."

The verbal proclitics are divided into two classes, temporal and interrogative.

Temporal Proclitics

A number of proclitics introduce temporal clauses, preceding the pronominal subject. The principal ones are *me-*, *ma-*, *be-*, *le-*, and *kacta-*, all meaning "when."

19. *mc-*, "when," indefinite time.

me-t-amp'	when it rises
me'-t'ya	when it is finished
me'-p-t'ekaxo	when he kills
me-p-a'lxo	whenever he wished
me'-t-k'onlox	whenever people came
me-yam-tem	when I see my house
me-t-epts'e'n	when they stung him
me'e-ka-wi'	whenever I get sleepy
me-eko	when I am
me'-t-a'mt'ele' (M)	when they go to hunt

The prefix *ma-* probably differs only phonetically from *me-*:

ma'-yal	when we go
ma'-paLa	when we dance
ma'-yomal	when they see

20. *bc-*, "when," definite past time.

be-yat'	when I went
be-tom-he' 'k	when I fell

21. *le-*, "when," indefinite past time.

le-yax	when I came
Li-etexa-e'n	when I was a boy
le-sko (M)	when I was (small)
le-t-eta-ha'pu (M)	when it was made

This proclitic is probably related to the temporal adverb of past time, *lolo*.

22. *kacta-*, "when?" temporal interrogative.

kacta-m-amp	when will you finish?
kacta'-umulop'	when will we finish?
kacta-m-ka'ka	when will you sing?
kacta-t-iyax	when will he come?
kacta-konox	when will I arrive?

There are several other possible temporal proclitics but examples are insufficient to establish their case.

With the temporal proclitics should probably also be considered the particle *tam*, *ram*, or *am*, "then," one of the most frequent connectives.

Interrogative Proclitics

Interrogative proclitics are few in number and genetically related to independent forms. In addition to the temporal interrogative given just above there are two adverbial forms: *akc-*, "how?" and *mcna'ko-*, "why?", and two pronominal forms: *ta-*, "who?" and *tas-*, "what?"

23. *ake-*, "what?" "where?" "which?" "how?" *interrogative adverb.*

<i>ake-noʔa-siL</i>	what shall we do?
<i>aki'e</i>	what is there?
<i>ake-t'm-e/ke'</i>	where art thou going?
<i>ake'am'</i>	whither?
<i>ake-me'nax-ta</i>	whence dost thou come now?
<i>aki-ea'</i>	how art thou?
<i>ake-ʔe ke'o</i>	where is he going?
<i>ake'ho' (M)</i>	which is it?
<i>ake-ʔa'ti' (M)</i>	what shall we do?
<i>ake-to'u ho' (M)</i>	which is this?
<i>ake-ton-ke'u (M)</i>	where is he?
<i>aki'tenó-pa'mka (M)</i>	where is he who is going to kill thee?

The particle *ton* in the last three Migueneño examples is of doubtful nature.

24. *me-na'ko-*, (*M*) *miyo'k*, "why?" *interrogative adverb.*

<i>me/nak'-t'-kom-i'ye</i>	why don't you go?
<i>mi'yo'k-ʔo-ku'm-icex (M)</i>	why don't you eat it?

The same particle is also used as conjunctive "because" and as an interjection.

25. *ta-*, (*M*) *tčk'a-*, "who?" "which?" "whose?" *animate interrogative pronoun.*

<i>ta-p-k' taten-ko</i>	who stole it?
<i>ta'ru-p'</i>	which of (them)?
<i>tə-kera'ne</i>	whose?
<i>ta ko'-otee-wa-xo'te</i>	whose dog is this?
<i>ta-lwa''</i>	which is the better man?
<i>tā-p'iem.o''</i>	who knows?
<i>tčk'a' (M)</i>	who is he?
<i>tčk'a (M)</i>	who is——?

26. *tas-*, (*M*) *ʔaltom'*, "what?" "which?" *inanimate interrogative pronoun.*

<i>ta's ten no'vi'</i>	what is that which——?
<i>ta-s-tu-a'lox</i>	what do you wish?
<i>ta's-ta.'va'</i>	what were they which——?
<i>ta's-ʔim</i>	what (animal)? what (did he say)?
<i>ʔaltom, ʔa'ltom' (M)</i>	what is it?
<i>ʔalt' ma'' (M)</i>	what saidst thou?

PROCLITIC PRONOMINAL SUBJECT

The pronominal subject of a verb is typically not expressed in the verbal complex but rather by the use of the independent form of the personal pronoun, generally following the verb and sometimes enclitic

to it. These independent forms have already been considered (p. 32) and the enclitics will be treated following verbal suffixes. When the verb expresses the third person it frequently stands alone without pronoun and also occasionally in the case of the other persons when no confusion will ensue. In a few cases when, due to special conditions, the independent pronoun precedes the verb, it may become coalesced with the verb in rapid speech and thus act as a proclitic. This phenomenon is rare and inconsequential.

But in certain constructions the pronominal subject becomes an integral part of the verbal complex. As such it is much reduced or abbreviated in form. Thus certain verbal proclitics and prefixes always require the pronominal first or second personal subject between themselves and the verbal stem. Such are the temporal proclitics and the negative and interrogative prefixes. These reduced subjective forms are:

<i>Singular</i>	<i>Plural</i>
1. e	1. a
2. m	2. (om)
me''e-ka-wi'	when I get sleepy
ke'ra' k-e-koL	I am not hungry
kacta-m-amp	when will you finish?
u-m-kaka	are you singing?
ke'ra' k-a-suxtox	we are not afraid

There are no forms for the third person and that of the second person plural is doubtful.

PREFIXES

Prefixed to the verbal stem may stand one or more of ten elements which signify modal relations. These are for the greater part the more abstract and general ideas, the more particular ones being expressed by suffixes. They are generally prefixed directly to the verbal stem though a few of them interpose the pronominal subject between themselves and the stem. But the combination is complete; there is no suggestion of the nature of proclitics. Some of them are mutually exclusive, while others permit of combination with other prefixes.

These ten verbal prefixes are of the greatest importance in Salinan morphology. The majority of verbs display one or more of these elements in their complexes. The first three undoubtedly are the most recurrent features in the language and their elucidation supplies the most difficult feature of Salinan grammar. The remaining seven are

more or less clear and unequivocal in meaning. For convenience in arrangement and nomenclature, each element has been assigned a number, a definite form, and an explanatory title. But in many cases, as the imperative and interrogative, the element appears to be pronominal in nature, and in others, as for instance the transitive, intransitive and nominal, the titles given by no means adequately explain the meaning and nature of these elements.

The ten prefixes with their approximate forms and significances are:

- 27. *p-*, transitive
- 28. *k-*, intransitive
- 29. *t-*, nominal
- 30. *m-*, imperative
- 31. *ko-*, negative
- 32. *o-*, interrogative
- 33. *ta-*, conditional
- 34. *en-*, dependent
- 35. *na-*, purposive
- 36. *se-*, substantive

Transitive, Intransitive, Nominal

The three prefixes, 27 *p-*, 28 *k-*, and 29 *t-* supply the most striking and at the same time the most elusive feature of Salinan morphology. The majority of verbs contain one of the three elements. But their great frequency only lends added difficulty to the elucidation of their proper values. If they have any absolute meaning it has eluded the present writer for many years. For convenience in nomenclature the titles as above given have been assigned to them for reasons which will be given below. But the titles are applicable to only a restricted number of cases and many examples absolutely refute the suggested explanations. It is possible that they are the vestiges of a once fully functional process, now petrified in its irregularity, or else broken down with the approaching extinction of the language.

The three prefixes are mutually exclusive; only one of them may occur in any verbal complex.

The sign *p-* frequently precedes stems with an object, generally personal, while *k-* may precede the same stem when used intransitively. *k-* also normally precedes stems when used passively, most intrinsically intransitive verbs and most adjectives. On this account these two prefixes have been designated by the terms "transitive" and intransitive."

k-ee'ai'	I woke up	t-ee'ai'	dawn
k'-ts'axe'le	it snows	ts'axe'L	snow
k'-t'e'pine	he is fat	t'e'pen	fat
k-iltee-wi'a	winter is coming	i'ltee	winter
k-eta'ne	it is budding	etan'	leaf
k-'a'mes	he shouted	p-'a'mes-ak	he cried to me
k-a-wiyak'ee'	it is hot	p-a'wi-lo-ko	she heated it
k-e'nai	he hurt himself	p-e'nai-ko	I wounded him
k-ospolo'x	he commanded	p-espolo'x-o	he seized it

But many cases are found in which *p-* introduces an intransitive phrase and *k-* a transitive one.

p'-iem.o'	I think
p-ikele'ntx-o	he circled around
p-a'lx-o	he wished (to)
p-a'mk-o	I am able
k-a'met'i	he hunted for him
k-ena'y-ok	he wounded him
k-te'a-uye'	they sought him
k-mala-k	they told him

Many of these apparent cases of the use of *k-* for the transitive may truly be passives.

One of the few features of practical certainty regarding these two prefixes is that the *p-* prefix nearly invariably takes the suffix *-o* or *-ko* as its third personal objective form while the objective form in *-k* occurs exclusively with the *k-* prefix.

In many cases the difference between the *p-* and *k-* prefixes appears to be that between singular and plural subject.

p-a-ke'n-o	I thought	k-a-ki'n-yi'	they thought
p'-me't-o-tén	he tried again	k'-me'ti	they try
ma'ita-ko	he told them	k'-maltau-k	they told them
p'ha'iyak	he paid me	ke-p'ha'iyak	they paid me
p-as-iem (M)	he was named	k-a's-ile	they are named

It is possible that the above cases are also passives, that construction being preferred with plural subjects.

When the prefix *p-* precedes a stem commencing in *m* the combination results in a surd *m*, the *p* disappearing.

Many different hypotheses have been advanced and considered concerning the nature of the *p-* and *k-* prefixes, but none of them seems to be applicable to every case.

The prefix *t-* seems to be an alternative form for either of the above prefixes. It is termed "nominal" merely because its form is the same as that of the nominal prefix no. 17 and there may be some con-

nection between them. This prefix seems to be found in two circumstances: it may stand initial as a prefix to certain stems which ordinarily utilize it, or it may replace one of the other prefixes when preceded by another prefix or proclitic.

The verbs which ordinarily take the *t*- prefix initially are principally verbs of motion:

t'-ia	he went
t'-iax	he came

Occasionally, though rarely, other stems, principally those commencing in a vowel, are found with the prefix *t*- in initial position. But the most frequent use of *t*- is in place of one of the other prefixes after another prefix or proclitic. The prefixes *p*- and *k*- are generally not found following other prefixes. They do occur under certain conditions:

am-p-ia'tleko	he sent them
am-k'-Na'yi'	he fled

But in the great majority of cases, particularly with stems commencing in a vowel, after the proclitic *tam* (*ram*, *am*), *me* and the other temporal and interrogative proclitics, the negative and the other verbal prefixes and the preposition, the transitive and intransitive prefixes are replaced by *t*-.

ta'm-t-a-de-la'ik'	they asked him	p-a-le't-ko	he asked him
ta'm-t-amp'	it came out	k-a-'mp'Lo	it came out
ra'm-t'-xwen	he arrived	xwe'nelax	they arrived
am-t'-yax	he came	yax	come!
me't-ant'ele' (M)	when they hunt	k-a'mti' (M)	he was hunting
me-t-amp'	when it came out	p-a-ma'mp'ko	he took it out
me t epts'e'n	when they stung him	am-k-eps'en-la'ik	they stung him
me'nak-t-knn-sa mo''	why don't you speak?	k'-sa'	he spoke
ko' t amai	he could not	ko'-p-amko	I can not
ti-t-a'levix	if they wish	p-a'lxo	I wish
ti-t-a'upta'	to come out	k-a-'mp'Lo	it came out

Imperative

The imperatives are confined to the second person; other forms are always academic and theoretical. It is very difficult to formulate the exact rules for the use of the imperative, as puzzling and apparently inexplicable exceptions to any rule are found, but the normal system seems to be:

Singular positive imperatives make use of the bare verbal stem if it commences with a consonant, or of the stem plus the prefix *m-* if it begins with a vowel. This prefix *m-* is very probably the *m* of the second personal singular pronoun. Singular negative constructions employ the prefix *kum-* in all cases.

Plural imperatives are scarce in the data secured but the prefix *k-* appears to be used in the majority of cases, the stem in the plural form in other cases.

A few examples seem to suggest that the *m-* and *k-* prefixes are used with transitive verbs, the bare stem with intransitives, but exceptions to this hypothesis are likewise found.

30. *m-, k-, imperative.*

k'ak'a	sing!
xa'la	shoot him!
male'ntax	remember it!
m-i'eim	drink!
m-et'eyine'k	shoot him!
m-ult'i'k	cut him!
m-ana'mpek	draw it!
ku'm-xa-ta	do not cry!
ko'm-icax	do not eat!
ko'm-pt'ika'	do not beat her!
ko-m-eek'wala	do not cut yourself!
yaxte'L	come on!
k-ostem mom	drink!
k'-ts'e'ik'	go and see him!
k'-mit'ka-tek	drive them off!

The imperative takes its third personal pronominal object in *-ik*, never in *-o* or *-ko*:

k-a'mamp-ik	take it out!
a'mes-ik	shout to him!
m-alel-ik	ask him!

Negative

The negative is expressed in two ways in Salinan: by the independent negative *ke'ra'* and by the negative verbal prefix. The two are normally used jointly, probably to avoid possible confusion with the intransitive prefix *k-*, as:

ke'ra' koxo'ye'	he did not reply
-----------------	------------------

31. *ko-, negative.*

The normal negative prefix seems to be the element *k* followed by the proclitic form of the subject pronoun. An alternative explanation

might be that the negative prefix is *k-* and that when required by phonetic laws the proclitic pronoun is interpolated. In either case the result is the same. As the third person is by far the more common in running text, the most frequent form of the negative is *ko-*; this again may be the true form of the prefix, the others assimilated to other vowels.

Verbal stems beginning in a consonant, form their negatives by the prefixation of the negative element *k* plus the proclitic form of the pronominal subjects, forming the prefixes:

<i>Singular</i>	<i>Plural</i>
1 ke	1 ka
2 kum	2 (kum)
3 ko	3 kot', ko

Thus:

ke'ra' ke-k'a'k'a	I will not sing
ke'ra' kum-ketca'	you are not large
ko-ts'e'no	he is not happy
ke'ra' ka-suxtax	we are not afraid
kot'-ko'nox	they did not arrive

Verbal stems commencing in a vowel seem to be less regular. In the first person the vowels of the pronominal subject and the stem appear to fuse, but not according to rule; in the second person, the prefix ending in a consonant, no change is necessary; in the third person singular one of the other verbal prefixes, generally *p*, is interpolated; in the third person plural the same prefix *kot* is generally retained. Frequently the sole difference between the singular and plural is in the use of the plural verb stems. When confusion is likely to ensue, the independent prefix *ke'ra'* is also used, as:

k-a'mko	I am not able
kum-'a'mes	you did not cry
ko-p-a'mko	he is not able
k-amxo-t'e	we were not able
ke'ra' ka-a'eax-t'elix	we will not eat
(k'o-k'-a'mko	you are not able)
me'nak t'kom-iyē	why don't you go?
kot-amai	they are not able
k-yam-auei-ak	they did not see me

Interrogative

The interrogative is expressed in Salinan by the prefixation to the verbal stem of the reduced proclitic form of the pronominal subject. Since in running text the third personal interrogative is by far the

most common, the third personal element is arbitrarily adopted as the sign of the interrogative.

The prefixed elements are:

<i>Singular</i>		<i>Plural</i>	
1	e	1	a
2	um	2	(um)
3	o	3	o

32. *o-*, *interrogative*.

e-ki' he'k	am I going?	a-kiya'L ha'k	are we going?
um-ki' mo'	are you going?	um-ki'al mom'	are you going?
o-ki' heyo'	is he going?	o-kia'L heyo't	are they going?
om-ya'meep	do you see?		
um-petxa'u	have you it?		
um-ka'xa-uló'	are you asleep?		
o-una''	this one?		
o'yo'	is it this?		
o-ko'nsele	will (he) sell		

The negative interrogative is formed by the interrogative prefix followed by the negative prefix, as:

o-ko'-p-enai	won't he hurt (me)?
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The interrogative is used in many cases of doubt or possibility but where no question is asked:

o'yema'	who might he seen
o-yo' 'ló	(to see) if he is there
o'yo' 'ló	(to see) where he is
o't'ika	(go) to see if there is
o'tica'mko	(I wish) I were able to
o-ja'mko	(he tries) to be able to
o't'amai	(they try) to be able to

The same or a similar prefix appears to be used for the vocative, as:

o-k'ewe'L	O, West Wind!
o'ta'mi-ko	Hello, friend!
o-eetelua''	Say, old man!

Conditional

Conditional constructions are expressed by the use of a prefix *t-* with following vowel. In the majority of cases this vowel is assimilated to agree with the following vowel of stem or prefix, but other cases seem to show no regularity. In a few cases the vowel may be that of the subjective pronoun.

33. *t(a)*, conditional.

ʔa'aunka se	if I am able
ʔa-ko'm-a-mko	(asked) if he could
ʔ'an-t'i-itxa'-tie se	if I had
te-etxa' se	if I have them, when I have them
ʔi-ko ʔep'eL	if it is not filled
ʔi-a'pau-te'	if I overtake him
ʔi-ki'e-k'a-ka-	if I don't sing
tie-ʔa'a'mka se	if I were able
ʔo-ko-leexai-ta	if it does not rain

Dependent

Dependent clauses of purpose, intent, doubt, possibility, following verbs of command and similar constructions are introduced by the prefix *en-* (*em*, *e*, *in*, *iq*, *an*, *on*, *um*, etc.).

34. *en-*, dependent.

en-t'-ya'	(commanded) to go
en-ka'u	in order to sleep
e'n-i-ts'e-na''	to please myself
'en-ts'e'n	in order to see
'en-ʔeo'p	in order to tell
em k'-en'lukue	so that it entered
em ya''	(said) to come
em-o'tikas (M)	to see if I can
em-te'au	(sh) whom I seek
em-sek'	(he who) speaks
tas-em-a'lox	what I may desire
e'm-p-eta'ko	(commanded) to make
e'm-p-ete'e-ko	(commanded) to stop it
i'n-t'i'ts'e-k'	(go) to see
iŋ-kera' 'k'a'Li''	so that not to fight
'iŋ-kera'-raerake	so that not
an-p-alelek (S)	if I ask
an ʔi-xo't'op'	(let me) pass
ʔ'-p'mko	(to see) if I can
on-p-apa'yu	in order to copulate
on-e'p o'x	in order to enter
um-ta'ne (M)	(told) to give

Purposive

Another prefix of somewhat similar significance but much rarer than *en-* is *na-*. In the majority of cases it appears to introduce dependent clauses of purpose. Its characteristic vowel seems to be modified by that of the pronominal subject.

35. *na-*, *purposive*.

na-acak	in order to eat
n-nm-ye''m	that you may know
na-paLa	let us dance
na-k'a'ltena	they are fighting

Substantive

A prefix of very dubious nature is *se-*. In some cases it appears to be an independent auxiliary verb, either preceding or following the main verb. (Cf. four of the examples of the conditional prefix.) But ordinarily it precedes the verb and may be considered either as prefix or proclitic. In many cases it appears to have a substantive value and consequently is thus named, though in many other examples its exact value is problematical.

36. *se-*, *substantive*.

se-a'telo'i	thou art my companion
se-ke'ra'	no
se-k-ts'e'p	thus it is worth
se-ko-ts'e'p	it is not good
se-k'-la'm-a-ilak'	they are gourmands
se-k-sa'tel	they used to speak
se-ka''wu.ox	he slept
se-ka'wu.eko''	he was sleeping
se-k'i-exa'lo.'	he was afraid
se-k'-ce'tep'-l6	he was already dead
se-p-asteene''ko	he lost it
se-p-eta''ko	he must respect
se-'mma'wu-mo''	and thou carriest it
se-k-iexa''-u-mo''	they will eat thee
se-ki-lo'	he went
se-eko''	he remained
se-p'-xa'p'ko	he dug
se-k'o'lpaX	it sprung up

VERB STEM

Following the verbal proclitics, the proclitic subjective pronoun and the prefixes comes the verb stem. Little need be said about this. A complete list of verbal stems is given in the vocabulary. They are of many phonetic types and apparently of no standard form. The exact form of any verbal stem is frequently difficult to determine in the absence of numerous paradigms, due to the practical universality of certain affixes with certain stems. Thus it has been impossible to determine in many cases whether an initial *p*, *k*, *m*, or *t* is a part of the stem or not. Such dubious elements have ordinarily been placed in parentheses and all *hapax legomena* have been starred.

Verbal stems are varied by means of infixes and suffixes to form the plural. These have already been treated under pluralization (p. 22). Pluralization of the verbal stem may denote any form of duplication: plurality of the subject or the object, or iterative, habitual or repetitive action. The context generally determines the exact meaning.

A few examples by Sitjar suggest that a change in the character of a stem vowel may denote the frequentative:

p-amo'leko	give alms frequently	p-ama'leko	give alms
m-amo'lek	Give alms thus!	m-ama'lek	Give alms!

OBJECTIVE PRONOUNS

Immediately after the verb stem follows the pronominal object. This is expressed by suffixing to the verb stem pronominal elements more or less closely related to the other forms of the personal pronoun. The combination seems to be closer than in the case of the enclitic subjective forms. When a personal pronominal object is indicated the subject is always expressed by the independent form. The objective pronouns of the Antoniaño dialect are:

Singular

1	ak, hak
2	ka
3	o, ko

Plural

1	t'ak
2	t'kam
3	ot, kot, tko

The simple forms need no explanation:

p-ale'lhak mo'	thou asked me
p-ale'l-ka' he'k	I asked thee
p-ale'l-ko mom	you asked him
p-ale'l-t'ak heyo''	he asked us
p-ale'l-t'kam ha'k	we asked you
p-ale'l-kot heyo''t	they asked them
mo' p-eik'a'iy-ak	thou kicked me
heyo'' p-eik'ai'ka	he kicked thee
he'k p-eik'ai'-ko	I kicked him
heyo''t p-eik'ai'l-t'ak	they kicked us
heyo'' p-eik'ai'-t'kam	he kicked you
mo' p-eik'ai'-ko heyo''t	thou kicked them

The forms of the first and second person require absolutely no comment but those of the third person are more variable.

Third personal objective forms are *-o*, *-ko*, *-xo*, *-tko*, *-ot*, *-kot*, *-xot*, *-tkot* and *-k*. With a few inexplicable exceptions, forms involving the element *o* are found only in connection with the verbal prefix *p*-, those ending in *-k* only in connection with the verbal prefix *k*-.

The forms *-o*, *-ko* and *-xo* are probably phonetic variants of one form and the same may be said for the forms *-ot*, *-kot* and *-xot*:

p-eta' 'ko	he made it
p-ise'l-xo	he carried all
p-axo' 't-o	he smoked him out
p-eik 'ai' 'kot	I kicked them
pesno' 'xot	you heard them
p-iam-ot	he saw them

Of these the forms *-ko* and *-kot* are by far the most frequent. Just what is the difference between the objective form in *-ko* and that in *-o* is not clear; it is possible that the forms in *-xo* are really *-o* preceded by an *x* of the verbal stem, but they are unexpectedly frequent.

Between the singular and plural forms of the third person objective there is considerable interchange. It will be noticed that the differentiating element between the similar persons of the different numbers is in every case the element *t*, probably related to the plural infix *t* (no. 15). Thus it appears that the forms of the third person singular may be used optionally for the plural if the third person plural independent pronoun is added. The plural infix or suffix *t* is also more or less optional when the subject is plural, forming the suffix *-tko* or *tkot*. The following examples of third personal objectives will well illustrate the variability possible:

ke'k p-iam-o	I saw him
ram-p' 'iax-te-ko	then he brought another
p-t' 'a-k' 'io' 'xo	he killed them
p-eik 'ai' 'ko heyo' 't	I kicked them
heyo' ' p' 'iam-axe'lko heyo' 't	he saw them
ram-p' 'ts'e-n-tko	he observes them
p-eik 'ai' 'tko	I kicked them
p' 'ia'm-o 't'	they met him
p-esno' 'xot heyo' '	they heard him
mom p' 'yam-ot heyo' 't	you saw them
p-eik 'ai' 'kot	he kicked them

Some of these forms may be paradigms incorrectly given, but the mass of material seems to show no uniformity, the third personal element *ko* or *o* being used for either number and the pluralizing element *t* added to form *kot* or *tko* for either plural subject or object, the independent forms being added in apposition in case of possible confusion.

Passive Forms

Frequently, particularly when the pronominal subject is plural and especially with an object of the first person, the passive construction is preferred to the active. Generally either the independent form of the subjective accompanies the construction or else the agentive phrase "by him," "by them" is appended.

The passive verbal complex requires the prefix *k-* instead of *p-* and the objective prefixes end in *-k* instead of in *-o* or *-ko*. The forms are *-aiyik* (*-aiyak*, *-i'yar*) in the singular and *-t'aiyik* in the plural.

k-ei'k'aiy-aiyik he'k te hiyo't	I am kicked by them
heyo't p-eik'aiy-ak	they kick me
k-alel'aiyik mo'	thou art asked
heyo't p-ale'l-ka'	they ask thee
ram-male'nt-a'iyax	then it was remembered
malent-xo	he remembered it
yom-al-t'aiyik ha'k	we were met
heyo't p-yam-al-t'ak ha'k	they saw us
k-ale'l't'ayik mom'	ye are asked
heyo't p-ale'l-t'kam	they asked you
heyo't k-ei'k'ail-taiyik	they are kicked
heyo't p-ei'k'ail-tko	they kicked them

SUFFIXES

The elements of the verbal complex following the stem and the objective pronoun are rather difficult to classify. Certain of them appear to be true suffixes, generally expressing modal distinctions and others, such as temporal qualifiers and the pronominal subject, are normally independent and, when combined in the verbal complex, evidently serve only as enclitics. Others appear to fall in the class of enclitics as regards their meaning but are not found in independent position. These have arbitrarily been classed as enclitics. The modal suffixes will first be considered.

There are four elements which may be considered as true verbal suffixes expressing various modal distinctions. These are passive, causative, and two desiderative forms.

37. *-a'*, (M) *-ap*, *passive*, *reflexive*.

t-etax-a'	which should be done
ra'mt'etax-h-a'	and it was done
me'p-am-k-a'	how you may be killed
ko-yem-a''	he was not seen
k-yam-a he'k	I was seen
mo-tasio-a-ko (S)	thy being named

p-esnai'-ya	he was heard
a'me-t-etax-a'p (M)	and it was done
le-t-etah-a'pu (M)	when it was done
m-ax-ap (M)	climb up! (ax <i>place</i>)
la'lu-a'p (M)	he departed (la'lu-o <i>leave</i>)
mi's-lip-ap (M)	stinking (mis <i>smell</i>)

38. *-at, -t, (-te), causative.*

yema-t-a'k (S)	show me!	p'-iem-et'	I will see you
am-p-ia'-t-ko	he sent them	ame-t'-ya'	he went
yax-te'-k'	bring him!	yax	come on!
k'-miṭ'k-a'-t-ek'	he chased them off	k'-mi't'ik	I run
paktei-u-at-ak (S)	they made me thirsty	k-akea'	he is thirsty
p-col-a'-t'-ko-ten	he freed him again	k-col	he climbed
m-anem-t-ak (S)	pardon me!	ik-a'nem (S)	snail I remain?

Possibly:

k-a's-et'	he is named	k-a's-e	they call
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39. *-ce', desiderative, substantive.*

The suffix *-ce'* is doubtless related to the prefix *se-* and is equally difficult to analyze correctly. A number of cases undoubtedly express a substantive meaning, identical with prefix *se-* when used as a substantive. Yet others appear to express some psychological idea such as desire, generally being suffixed to verbs which are themselves dependent on some verb of desire, thought or some similar concept. It is therefore not a true desiderative. It is quite possible that both here and in the case of prefix *se-* the substantive forms should be eliminated and placed in a separate category as constituting a different, though homonymous element.

etelwa'-l-e'-k-ee''	I am getting to be an old man
ka'-wiya k'-ce'	it is very hot
kauya-c-e'k	I am hot
ṭa'me-la'-p'-se-ṭo' (M)	and there was the raven again
p-alox-he'-k-ee'	a desire, I desire
p-alox-nel-kek-ce	desires
p-alxo-ce'	a desire
p-alxo-xek-ce	I would like to (but can't)
ram-ko'-neka'-ce'	he did not wish to
ṭa-a'-mela'-i-ce'	(he wanted) them to be killed
p-i-se-'lxo k'sa'-ce'	(he tried to carry) them all
ku-ṭ'ia'-t'-ia'-lo'-ce'	he did not wish to go yet
ram-k' u-ts'e'-nu'-k'sa-lo'-ce'	then he was very contented
p-a-kē'-n-u-k'sa-lo'-ce'	he thought that
malentxo-ce'	he remembers

40. *-ya'*, *desiderative*.

The suffix *-ya'* is a rather dubious and rare suffix but the few examples of it found seem to carry a desiderative significance.

ra-ko'-'iexai'-ya'	that it did not wish to dawn yet
kwa'-haliya	I wish to kill
kí'-at'-'ya-lo-he'-'k	I wish to go now
te'-ce'tep'-ya'	he was as if dead
ko-citip'-ya'	he did not die
k-iyax-el-yi	they wish to come

ENCLITICS

There are six particles of varied significance which are never found in independent position but always suffixed to a verb or, rarely, to some other part of speech. These might possibly be considered as verbal suffixes were it not that their meanings are rather different from those of the true verbal suffixes and more akin to those of the true enclitics. These may be termed the quasi-enclitics; they express modal and temporal qualifications. The true proclitics, which are normally found in independent position are the tense elements and the pronominal subject.

*Quasi-enclitics*41. *-tén'*, (M) *ton'*, *iterative*.

The verbal suffix or enclitic *-tén'* in Antoniaño, *-ton'* in Migueleño is doubtless akin to the nominal plural *ten'* (no. 8) and indicates "again," "another."

ra-ke'ra'-te'n'-lo'	(he told them) that there was no more
pa'-lxo-tén	I want more
ka'-u-tén'	he also slept
k'-t'-'o'xo-ke-tén	he was also a murderer
p'-ne'-'wu-tén	he seized him again
ko-citip-tén'	he did not die again
na'lye-ton' (M)	they await another
ne'q-to'n (M)	he also seized it
noi'yo-ton' (M)	he went to gather again

42. *-ts'e*, *iterative*.

The verbal enclitic *-ts'e* appears to mean also "again," "another," and the difference in meaning from *-tén'* is not apparent.

ra'm'-eexa-i-ts'e	it dawned again
ra'm-t'-ia-ts'e	he went again
ra-m-sma'k'ai-ts'e	and it became night again
ra'm-t'-i-eko-ts'e	and he was there again

ta'm-tia-k-ts'e'	and he began again
p-eta''a-ko-ts'e'	he did (evil) again
ea-ke-ni'ts'i	they aimed again
k'a-ltena-lo-ts'	we will fight again
no''-k'e-ts'a (M)	I first
p'mat'axo-tsa	I used to tamp them
p-ya'm-ts'e	I used to look

43. *-t'ia'*, *distributive*.

The enclitic *t'ia'* means "each," "every" and when suffixed to verbs gives to them a distributive significance.

k-otco-xna-gas-t'ia'	he ran dripping
te-to'm-t'ia'	wherever it dropped
t'oL-t'ia	every one

44. *-an*, (M) *-ani*, *expletive*.

An enclitic *-an* or *-ani* is frequently suffixed to imperative and other forms of verbs, apparently as a mere expletive, though it may be akin to the future particle. It is frequently translated by the Spanish "pues."

ya'x-tek'an	well, let it come!
ts'ep'an	well, good!
m-i'exo'ba''k'a'n	it is better that thou eat me
ma'we'xe'an-k'sa''	place thyself firmly!
ka'xaw-an	they slept
xifi-pa'ko-a'NI (M)	well, impel thyself!

There remain two quasi-enclitics which appear to refer to tense: at least the examples of them suggest no uniformity except that of past intransitive tense. The main tense signs are independent adverbs and only sporadically enclitic, while these two forms appear never to occur independently or to be related to any independent adverbial form. They partake therefore of the nature of enclitics and are occasionally suffixed to other parts of speech than verbs. No difference between them has been discerned.

45. *-tek'*, (M) *-tek*, *past intransitive*.

ee'tep-te'k'	he died
ee'tep'-ma'as-te'k'	he died
ke'ra'te'k'-ksa	he was not seen
ts'a'telo-m-tek'-k'sa'	it became cold
t'o'loinox-tek'	it is finished
ta'mi-ya-tek (M)	he went (to bring)
ta'mi-yax-tek (M)	I came
ta'me-xwe-n-tek	he arrived
ta'me-lam-tek	and he ate

The enclitic *-to'* is found principally in the Migueleño dialect.

46. *-to, (M) -to', past intransitive.*

ram-t'-'ia'-to	soon he went
t'i-k-ia'-to	who knows where they went
p-ee-xai'-to ^u (M)	it dawned
me-p-ee-xa-i-to' (M)	in the morning
ta'me-lam-tek-t'o ^e (M)	and I ate
ta-me-nal-k'e-t'o' (M)	I filled myself
ki-ke-'to' (M)	I went
neq k'e-to' (M)	he went to fetch
toi-x-to' (M)	another

Tense Enclitics

Absolute tense is normally expressed in Salinan by means of independent adverbial particles. These normally follow the verb and frequently are interposed between the preceding verb stem and the following enclitic pronominal subject; in this case the three are frequently combined by elision into a single complex. The same particles are frequently suffixed to other parts of speech and give to them the same qualifications of tense.

Past tense is normally expressed by the particle *l'-lo, l'-lu, l'el, lo', (M) l'-lo'*. This is generally reduced in the enclitic forms.

47. *-lo, -le', -leu', -l-, past tense.*

ki-lo he'k	I went
ki-he'k-lo	I went
ki-le'k	I went
ra-ko t'-'ia'-lo	and they did not go
ko'yema'-lo'	they did not find him
k'-ee'-pa'-lo''	he became afraid
p-yam-hek-lelo	I saw her before
k-amt'e-lek	now I can hunt
nap'-le'' (M)	he cooked this
ke-we-ts'na-le'' (M)	he comes shouting
se-ke-lep-le'u' (M)	he enveloped it
yent'xo-le'u' (M)	he almost overtook him
ki'yax-leu' (M)	he is coming

Some instances of the same enclitic suffixed to words other than verbs are:

k'lu-wa-lo	long ago
ha'k-lo	now from henceforth
ke'ra'-lo	there is no more
k'o'uxa-lo'	it was already late
ma-keu-lel	where they were
rum-p'a-k'e'u-lo-ta'	there where he is
lo'ra'	already
etel-wa''-le'k-ee''	I am an old man already

Present time is normally not expressed in the verbal complex; when required it is denoted by the independent adverb *taha* or *ta-*, (M) *tana'*. The idea expressed seems to be that of proximate time, either just passed or approaching. Very rarely is this element found as a verbal enclitic in the form of *-ta*.

48. *-ta, present tense.*

ki-yax-ta	he is coming now
hek-ta-p-iam-o	I am going to see him
k'-yam-o-l-ek-ta	I saw him just now

In combination with other parts of speech it occurs also:

me-sma'kai-ta	tonight
na-ta-sma'kai	tonight
me-ko'nxa-ta	this afternoon

Future time is expressed by the adverb *no-nó*, or *non*, appearing as enclitic in the verbal complex in the form *no* or *n*.

49. *-no, -n-, future tense.*

ki'-n-e'k'	I am going
ki'-no-hek	I am going
ki-he'k-no	I am going
te'a'uye'-no''	they seek him
te-t'-iya-no''	in order to go
ake-t'me'-ke'-no''	where are you going?
nap'-no'na (M)	it is cooked
xa-ta-no-k'e'' (M)	I am going to weep
p-a'mtak-no' (M)	he will seize them
ki'yax-no'' (M)	there he comes
pt'eka-n-ek heyo''	he will kill me
pt'eka-n-he'kiyax	he will kill you
pt'eka-n he'k	I will kill him
me.'to-n-e'k'	I will try it
tas-k-co'ue-n-ek'	I am going to kindle it
ki-n-e'k'	I go

The same particle is also found suffixed to other parts of speech:

ka's-no	just now
k'Lu'wa'-no'-p'	a little time passed

A more or less dubious particle which apparently denotes future time, possibly more distant than *no* is *mas*.

50. *-mas, future tense.*

hek-mas-p-yam-o	I will see
ke'ra'-mas-ko-liexai''	it will not rain forever
xa'ta-mas-he'k	I will weep

A few uniform examples secured by Henshaw from the Migueleño dialect suggest that position may be of some importance in the determination of tense. Thus in several examples the pronoun is suffixed for the present tense and prefixed for the past. It is a question how much reliance is to be placed on this material.

seku-ke-meka	I am talking	ke-seku-meka	I was talking
hati-ke-meka	I am crying	ke-maka-hata	I was crying
kaka-ke-maka	I am singing	ke-maka-kaka	I was singing

In the material of Sitjar and Henshaw many verb endings are found which are not explicable by any of the above rules and do not appear to be parts of the verb stem. A few such examples are also found in the present textual material. It has been necessary to disregard these sporadic irregularities since not sufficient examples of any instance have been found to warrant formulation and inclusion here would only tend to confuse the work of Salinan comparisons.

ENCLITIC PRONOMINAL SUBJECT

As has before been remarked, the pronominal subject, in independent position and form, normally follows the verb. But in rapid speech tense adverbs and the pronominal subject tend to become abbreviated and to coalesce with the verb stem, forming a complex. Practically, this phenomenon is limited to the first person singular which is abbreviated to *-ck*. The first personal plural form does not seem to abbreviate to *-ack*, possibly to avoid confusion with the first personal singular objective pronoun *-ack*. The forms of the second person, commencing as they do with a consonant, are not susceptible of abbreviation and the third personal pronominal subjective forms are ordinarily not expressed.

etelwa'-'lé'k-ee	I am an old man already
tas-k-co'ue-n-ék'	but I will kindle it

ADVERBS

Independent adverbs play an important part in Salinan, owing to the paucity, in the verbal complex, of particles expressing adverbial concepts. Thus most of the locative and temporal relations are expressed by independent adverbs. Lists of these adverbs will be found in the vocabulary. In a few cases adverbs are composed with prefixes; these will be given below.

TEMPORAL ADVERBS

A particle *mc-* when prefixed to temporal nouns or adverbs denotes time when. It is undoubtedly the same element as the verbal prefix *mc-* "when," (no. 19).

51. (19) *mc-*, *time when*.

me-t'ol- <i>to'</i> kena'-tén	another day
me'-t'ol- <i>lee'</i> '	the following year
me-lpa'l	in the summer
me'-smakai	tonight
me-ko'nxa'	this afternoon
me'-ecxai	in the morning
me-t'ol-ten	the next time
me'-t'ol-k'we'l	another time
t'a-eXe'l-me'	sometimes

Similarly a nominal prefix *no-* appears to denote definite time in the past.

52. *no-*, *time when (past)*.

no-ko'nxa'	yesterday
no- <i>ie</i> xai'	this morning
no-wa-na''	yesterday morning
no-teieyo	yesterday
no-p'a'	day before yesterday

LOCATIVE ADVERBS

Locative constructions are expressed in three ways.

The broader and more general relations expressed by many English prepositions are in Salinan expressed by an independent or proclitic particle *tu* (less often *tc*, *ti*), evidently related to the prepositional *tu*. In such cases it means "in," "on," "from," "onto," "upon," "to," "by," "up," "into," "over," "within," etc. Either rest or motion is implied. In many, possibly most cases, it appears as *tum*, rarely as *tumá*, the difference in meaning from *tu* being not evident.

The second class of locative constructions comprises the more general locative adverbs such as "here" and "there."

The third class comprises the more definite adverbs, generally expressed by prepositions in English, such as "down," "beneath," "beside," "within," etc. Lists of both of these classes are given in the vocabulary. Many of these are nominal in character and require a locative adverbial or prepositional prefix. These prefixes seem to be varying combinations of four elements: *tu* (*ru* or *ti*), *ma*, *um* and *pa*.

53. *ma-*, *place whither*, *place where*.

ma-le-mo'	over, above
ma-la'k'o	at the foot, below
ma-t'ika'ko	up
ma-t'icxe'wu	at the foot
ma-t'uLi	on the hill
ma-swiida	to the city
ma-ke'u	to where they were
ma-te-mo'	on the house
ma-k'e'weL	to the north
ma-pxa'uol	at the south
ma'e	there

54. *tuma-*, *place whither*.

tu-ma-kiLi-he'	down
tu-ma-k'e'nax	whither I had come

55. *um-*, *place where*.

um-te'ma	in my house
um-tite'o'ma	on his back
um-le'sam	at Morro
um-la'mka	at the beach
em-k'we'L	through the world
em-t'ka'teno	on the buttocks

56. *tum-*, *rum-*, *hom-*, *place where*.

rum-t'ea'	in the water
hom-t'-a''sko	on his head
tum-tetoke'u	from there
tum-tee'n	outside

57. *umpa-*, *rumpa-*, *tumpa-*, *place whither*, *place where*.

umpa-k'e'e-nax	where I came
umpa-t'k-o'ma	at, to your houses
umpa-te'a'	to the water
ump'a-ka-le-lu	where you were
tumpa, rumpa	there, thither

58. *tu-*, *ru-*, *place whither*.

tu-wi'	hither
tu-wi-tee'n	outside
ti-sk'am	close by

OTHER PARTS OF SPEECH

PREPOSITIONS

The connective prepositional relations, as distinguished from the locative prepositional relations are expressed by the omnipresent particle *te*. This is most frequently translated by the English preposition "to," but also by "of," "from," "with," "in," "by," "than," "that," "for," and others. It expresses most of the oblique case relations of the Latin genitive, dative and ablative, the infinitive and participial relations, besides following most verbs of thinking, desiring, trying, beginning, ceasing, ability, knowing, purpose, etc. Its normal form seems to be *te* or *ti*, but the vowel is very often assimilated to the vowel of the following stem as *ta*, *to* or *tu*. It similarly often combines with the particle *pe* to *tup* and with the pronoun *mo* to *tum*. Examples of its use are innumerable in the texts. They include such constructions as:

He finished <i>from</i> work	We began <i>to</i> shoot
I wish <i>to</i> eat	I told him <i>to</i> do it
I shot <i>with</i> an arrow	I think <i>that</i> he will come
You know it <i>to be</i> bad	Better man <i>than</i> you
<i>In order to</i> sleep	It was given <i>for</i> her
Why <i>did</i> he go?	He came <i>to</i> us
Some <i>of</i> my arrows	Go <i>with</i> him
Was killed <i>by</i> them	I am able <i>to</i> shoot
He tried <i>to</i> run	Makes no difference <i>to</i> me
It is full <i>of</i> atole	

ADJECTIVES

As in the case of many or most American languages, the adjective partakes very largely of the character of the verb and might possibly be considered as a verb, though lacking many typically verbal functions. Thus "blue flower," "strong man," "warm day" are syntactically rather "the flower is blue," "the man is strong," "the day is warm." Adjectival roots thus normally bear the intransitive verbal prefix *k* and are susceptible of change to denote the singular or plural number to agree with their qualified noun. They lack the tense-mode affixes peculiar to verbs.

Several good examples of the inter-relation between adjectival and other stems are:

k-i-'sil-e'	all
p-i-se-t-xo	(carried) all
m-isil-i	(tell) all!
k-eexo'n-e	poor
p-eexo'n-eet	it pains you
tet-eexo-n-i'	the poor one

In two of these cases an adjectival suffix *-e* appears to be present; this is not found in a sufficient number of examples to warrant its formulation as a rule. A large number of apparently adjectival stems are given in the appended vocabulary.

DEMONSTRATIVES

The principal demonstratives "this," "that," "these," "those," are employed very frequently, *pe*, "that," "those," generally serving as equivalent to the English definite or indefinite article. They are invariable in form as regards number. Full lists will be given in the vocabulary.

CONJUNCTIONS

Conjunctions or connectives are of considerable importance in Salinan and frequently used. They are generally prefixed as proclitics. A list of them will be found in the vocabulary.

PART III. TEXTS

The texts following are appended as material illustrative of connected Salinan speech. Interlinear translations are given following as closely as possible the sense and order of the Salinan original, and free translations are appended for a fuller understanding of the context, and because of the interest they bear to mythological and folklore studies. Both the dialects of San Antonio and of San Miguel are represented, the former composing the first part and the majority of the material.

The Migueleño texts were all taken in 1916 from Maria Ocarpia, an elderly woman living at the "reservation" at the foot of Santa Lucia Peak, a little north of San Antonio Mission. All of the texts secured from her are original and the great majority are of mythological importance. It is doubtful if the dialect is represented in its aboriginal purity, but undoubtedly no better material is securable at present.

The Antoniaño texts are a more heterogeneous body. First in order in the following material are the texts of David Mora, a pure Antoniaño Indian. These also probably represent as pure a dialect as is procurable at present. These texts supply the bulk of the material and are for the most part original and of considerable mythological interest. Two texts at the end of this group were translated into Salinan by the informant from the Spanish originals taken from Juan Quintana, an aged Indian unavailable for linguistic purposes. They are of mythological value but the native form and syntax can not be above suspicion of Spanish influence.

The balance of the material was given by Pedro and Maria Encinales, members of the best known surviving Salinan family. The father, Ensabio Encinales, was of the San Antonio group but the mother, Perfecta, belonged to the other division and spoke Migueleño. It is generally admitted that the language spoken by the children is rather hybrid and must therefore not be taken as a standard. Moreover they are quite ignorant of stories of mythological value. First in this group are a series of texts, mostly short, given by Maria Encinales. They were translated into Salinan from the Spanish of Juan Quintana and are included because of their mythological value and because voluntary

text material was rather scanty. But they should not be regarded as standard. Last are a series of texts secured from Pedro Encinales, the first informant used. All but one of these were secured in the fall of 1910 in San Francisco, the one exception being secured in 1916. Most of them were voluntary but only a few of any mythological interest. Three were translated from mythological texts secured from other linguistic groups and already used several times in similar circumstances with other Californian languages.

The reader is referred to page 186 of the author's ethnological paper for a discussion of Salinan mythology. In the appended mythological material the importance of cosmogonical legends is again demonstrated, an interesting point being the widely variant forms which a myth may assume even among closely related and contiguous groups, as witness the variant forms for the "Beginning of the World," "The Theft of Fire" and other myths of this type. These kinds of myths are of widespread occurrence on the Pacific Coast. Apparently of more local interest are the incidents, evidently parts of an important culture epic, relating the adventures of the culture heroes, Prairie-Falcon and Raven, in ridding the country of maleficent characters. The explanatory element, already referred to in the former paper, is again well exemplified in the accompanying material.

DIALECT OF SAN ANTONIO

PRAIRIE-FALCON, RAVEN AND COYOTE¹³

kla'p-ai	βehiyo-'t	ra'mt'ia-'teL	xo't'lop'	ro'pt'e-mo'	
Are three	the they.	Then went they,	passed	by his house.	
ra'mt'e'i	belk'a'	k'ts'e'ik'	naete-lwa''	k'cau'wena-ni	
Then said	the coyote,	“Go see	this old man,	is dancer!	
polo'x	ta-to'ki	po'lox	ra'mteta'k'	ka'e-el	o'smahate'L
Enter	within!	Enter!”	Then said,	“Sit down,	beauties!”
ra'mt'e	pa-ta''	'ents'e''en	roβata-'ma'	smahate'L	
Then said,	“Dance	in order to see	by the men	beautiful.”	
ra'mt'e''	ai'	etelwa'le'k	ee'me'tone'k'	a'a'mko	
Then said,	“All right,	old man already I.	Try will I	if can	
ti'ca'wena-ni	ka-'wiyak'ee'	na'taa'	taskeo'une-ne'k'		
to dance,	Hot is	now,	but kindle will I.		
ra'me-t	ripa'ta	ra'mpet'e-ko	tets'e'wu	ra'mtica-k'	
Then try	to dance.”	Then straightened	his tail,	then lifted	

¹³ Told by David Mora, 1916. Cf. Ethnology, p. 193.

ʔipa'ta pike'le-ntxo me'ca-k' ʔupke'wu ita-má sk'amksa"
 to dance. Whirled around continually to where men, close more
 me'ca-k' ʔupʔuhe'nu peta-ma'' ʔka'teno becuwa'
 continually to their faces the men his anus the skunk.
 ra'mʔeta'k yax rask'a'm ksa yaxtén k'sa
 Then said, "Come to close more! Come again more
 rask'a'mk'sá' we'tenk'sa'' pa'lxo ʔep'a'lo ramba'la'
 to close more!'' ? Wished to fire. Then threw
 ʔuʔeka'wi te'xa'' ke'na-yok' k'sa' emk'en-lukne
 with the hot stone. Hit him more so that entered hole.
 ra'm'ehe'ʔe-nxá' ra'm't'e'e aʔa' pelk'a'' xomo'' lwa''
 Then ran around. Then said, "Yes! The coyote bad man!
 xai'ya' ʔema'ʔu ra'mʔxwene-lax pese-mta'n 'amʔeʔeek'an
 Many to kill!'' Then arrived they the children. Then said the hawk,
 semta'n ʔeski'ntui' mo'na'ko ʔuksu'mun kara'mas
 "Children, to be thin why your legs? Not more,
 ko'ʔap'e-L name'n ra'm-e-ti' ʔeʔa'poi'yax petiexe-ple'to
 not fill this hand!'' Then tested to feel their feet.
 amko'ʔapeL ra'mʔetaʔu'laik' rake'ra'tén'lo' kera-lo''
 And not filled. Then said to not again already, not already.
 ra'mmoʔ'oxo ra'mpl'e-i'ʔxo rumʔoki kwa'p' ma'lo-L
 Then squeezed them, then threw them to within sweathouse. Flew
 taa'so rumʔo'ki ʔaa'u' ra'mʔetak' pelk'a' ma'ntén'ri'
 helplessly to within fire. Then told the coyote, "Come also here!''
 ra'mʔi ʔame'na'ko ʔi'ya'tén' te'le' po'xra' ramko'neka'ce'
 Then said, "Then why to go also?'' "Hurry! Enter!'' Then not obeyed.
 ra'mʔispa'lax kli'yai'yax rumʔo'ke ʔaa'u' amklo-L
 Then seized, threw to within fire. Then burnt
 roʔé belk'a' xomo'lwá' pa'lxo ra'a'mela'i tereté'
 by the the coyote. Bad man! Desired to be killed. Therefore said,
 polo'x ko'ʔe'ik'sá' xomo'' lwa'' pa'lxo ʔaa'mela'ice'
 "Enter!'' Not said more. Bad man! Desired that be killed
 yo''u ra'mʔia-tel ramko'lo-li' ʔia'' bela'' pe'snai'yax
 he. Then went they, then played flute. Went the raven. Heard
 a'ha-ti' ʔuʔʔulola'yo bela'' ra'mʔe'ta'k taa'sten
 music of his flute the raven. Then said, "What again
 no'vi' k'a'mes ʔa-koi'yu' nuk'a'xa-t'i lwa'' raʔke'rum'
 this which cried? Not it is music man! Then wherefrom
 ke-no'xo pek'a'xa-te ʔeti'eupax k'sa peaba-ti''
 comes the music?'' To hear more the music.
 ramko'tietok'sa' ra'ke rakot'ia-lo ra'ké se'ni' kas
 Then not seen more anywhere; to not go already anywhere; walked only

tepa'sia'ten' yo' k'a'le'p bela'' ramku'yema' akaa'su
to stroll again. He lost himself the raven. Then not was seen. "What think
me'na'ku tika'lep ramkte'a'uye' ramko'yema'm ke'te-ke'wu
why to lose?" Then sought, then not found went where.

te'a'uye' me'ea-k yo' ram-ale'nta'iyax teno'nauax
Sought continually he. Then remembered to collect

pet'a'xa'yuxten te'a'uye' no' t'a-penya' yora'm
the bears. Sought ? gathering. He then

ta'na-ta'iyax teho't'ap' ea-xa'ta ea-ke'nu t'ia''
allowed them to pass. "Open mouth!" Pointed, went.

ra'mp'ia'xteko t'olt'en' ea-xa'ta' p'ea-ke'nu t'ia'' pexwe'n
Then brought another. "Open mouth!" Pointed, went the arrive.

xot'o'p ya'xte'k'ten t'ol ra'mf'e' peselo'y' k'a'mes
Passed. "Bring another one!" Then told the mouse, shouted

t'iyax ra'mf'e' ka'xai telwane' ra'ts'am-is eo'ul
to come. Then said, "Afraid! Strong!" Then shouted, climbed up,

t'ia'x telwane' ka-muxwe'n petaxai'' ra'mf'i' peselo'y'
came strong. Arrived the bear. Then said the mouse,

ka'xk'o' na' setelwane' a'mea-k'e-ni a'mf'e'ta'k ea-xa'ta'
"Careful! This is strong!" Then pointed, then said, "Open mouth!"

ra'mf'i' te'pen tu'le-t ka'a'anko te'ea'xata'
Then said, "Hurts tooth! Not able to open mouth."

ra'mea-ke-ni'ts'i' ea-xa'ta' skomo'' gas amk'ne'ka'
Then pointed again. "Open mouth little only!" Then obeyed;

peta'ko k'su'lnkui ka'skumú petee'lko a'mfeta'k
made opening only small the his month. Then said,

a'imya'' ra'mhala' umek'a'yu Lk'e'lt'epak'sat'ya'
"Go ahead!" Then used his talons; went rolling down.

'amfeta'k beselo'i ma'a'' eko'ra' mo'piem'ó' tumti'u
Then told the mouse, "Carry him! Is here! Thou knowest thy ability."

ki'ea-k ma'a'wu pi-se'lxo k'sa'ce' ramko'pa'anko
Went carried all more. Then not could;

kefte'o'plo' ra'mp'ts'e'ntko emk'we'L akaa'so o'yema'
tired already. Then watches in world who sees.

ra'mp'ia'mo be'too'wu k'so'menxa' ko'la'le toptoo'wu
Then sees the his face stretched. Ashamed of his face.

rum'e'pia'mo ramko'niyi' te'tia'' make'ewu bexai'ya'
Then sees it; then afraid to go where they the many.

ra'mpox rufto'ke k'at' ko'ho-ma' toftolola'iyu
Then enters to within grass, hides of his shame.

ko'iyema'lo' gas yo'loptiat'a'iyó
Not is seen already only. He went away.

The three friends Prairie-Falcon, Raven and Coyote passed by the house of Skunk. Then Coyote said, "Let's go in and see this old man, the dancer. Come on in!" He wanted Skunk to kill them. They went inside and Skunk said, "Sit down, my good fellows!" Then said Coyote, "Please dance, so that these gentlemen may see it." Skunk said, "All right; I am getting pretty old, but I'll try to dance. But it's very hot; I'll light the fire and then try to dance!" Then he straightened his tail out, lifted it and began to dance. He whirled around, continually bringing his anus closer to the faces of the friends. "Come closer!" he cried. "Come closer!" For he wished to shoot his poison at them. Then Raven threw a hot stone at him so that it entered his anus. He ran around in pain. Then he cried out, "Yes, this Coyote is a bad man; many has he killed." Then he died.

Then came the children of Skunk who were little birds. Prairie-Falcon said, "Children, why are your legs so thin? They wouldn't fill my hand!" He seized their legs to feel them and they did not fill his hand. "No," he said, "there is no more." He seized them tight and threw them into the sweathouse. Blindly they flew around into the fire.

Then said Prairie-Falcon to Coyote, "Come here also!" "Why should I come?" asked Coyote, frightened. "Come on! Hurry up!" But Coyote did not obey. And Prairie-Falcon seized him and threw him into the fire when he was burnt. A bad man was Coyote; he wished the others to be killed and so said "Enter!" at the house of Skunk. But he said no more; he was a bad man for wanting the others to be killed.

Away they went, Raven playing his magic flute. All the people heard the music of Raven's flute and said, "What is that noise? Surely it is not human music! From where comes this music?" More clearly sounded the music but suddenly it ceased and was not heard anywhere. The people wandered about but could not find him; Raven had been lost. "Why do you think he has lost himself?" they asked. They hunted for him but could not find him; they hunted him everywhere. Then Prairie-Falcon bethought himself of the bears and decided to collect them; he sought them out and gathered them together, for he suspected that one of them had eaten Raven. He made them pass by him one by one. "Open your mouth!" he ordered and pointed his arrow at them. Then he inspected their mouths. One by one they went and another came. "Open your mouth!" and he pointed again. "Bring another one!" Finally there remained only

one; Prairie-Falcon told Mouse to call to him to come. But Mouse said, "I am afraid! He is too strong!" At last Bear came, climbing up and shouting loudly. Then said Mouse, "Be careful! This one is very strong!" Prairie-Falcon ordered him "Open your mouth!" and pointed his arrow. "My tooth hurts," said Bear. "I can't open my mouth!" Then he pointed his arrow again. "Open it just a little ways!" Bear obeyed and opened his mouth a very little bit. "Go ahead!" he said. Then Prairie-Falcon stuck in his talons and Bear went rolling down, dead. Then said Prairie-Falcon to Mouse, "Carry him away! There he is; you know your strength!" Mouse endeavored to carry Bear away whole, but he could not; he became tired. Therefore his nose is stretched out and he goes through the world watching who notices it. He is ashamed of his face. When he sees it he is afraid to go where there are many people. Therefore he keeps in the grass and hides for shame. And he is never seen; he went away.

Analysis

To give a clearer idea of the nature of the language an analysis of the foregoing text is presented below. Many of the constructions are doubtful; in such cases the most doubtful have been assigned a question mark, the others given the explanation which seems most probable.

The following symbols are employed in the analysis:

S	denotes the stem, verbal or nominal
adj	denotes an adjective
adv	denotes an adverb
art	denotes the article (demonstrative)
con	denotes a conjunction or connective
dem	denotes a demonstrative
int	denotes an interjection
loc	denotes a locative adverb
neg	denotes the negative
num	denotes a numeral adverb
pre	denotes a preposition
pro	denotes a proclitic
plu	denotes the plural, when this is irregular
tem	denotes a temporal adverb

The various numbers from 1 to 58 refer to the numbers given the morphological elements in the preceding grammar.

The pronouns are denoted by a combination of three elements; the numbers 1, 2 and 3 for the persons, *s* and *p* for the singular and

plural numbers, and *i* for the independent, *s* for the subjective, *p* for the possessive, *l* for the locative, *o* for the objective and *pas* for the passive, as:

1ss	first person singular subject
2po	second person plural object
3ppas	third person plural passive

k-Lap-ai 28-num	βe-hiyo-t art-3pi	ram-t' -ia-tel pro 29-S-12	xot' -l-op' S-14-S	ro-p-t' -e-m-o 58-art-17-S-3sp
ram-t' e' i pro-S	he-ik' a art-S	k' -ts' e-ik' 30-S-3so	na-ete-lwa ' dem-6-S	k' -cauwenani 28-S
p-ol-ox S-14-S	ta-to-ki pre-loc	p-ol-ox S-14-S	ram-te-ta' k' pro-S-3po	k-ae-el 28-S-12
ram-te' e pro-S	pa-ta' S	' en-ts' e' -en 34-S-44	ro-βa-ta-má ' pre-dem-S	sma-ha-t-eL S-12-S-12
ram-t' e' e pro-S	ai' int	ete-lwa' -l-e' k-ee 6-S-47-1ss-39	me-t-on-ek' S-49-1ss	a' -a-mk-o 34-S-3so
ti' -ea-wena-ni pre-S		k-a-wiy-ak' -ce ' 28-S-1so-39	nataá' tem	tas-k-eoune-n-ék' con-28-S-49-1ss
ra' -met pro-S	ri-pa-ta pre-S	ram-p-et' ek-o pro-27-S-3so	t-ets' e' w-u 17-S-3sp	ram-t' -ica-k' pro-29-S
ti-pa-ta pre-S	p-ikelen-t-xo 27-S-15-S	meca-k' adv	tu-p-ke-wu 58-art-3sl	i-ta-má ?-S
sk' am-ksa' loc-adv	meca-k' adv	tu-p-t-u-hen-u 58-art-17-S-plu-3sp	pe-ta-ma ' art-S	t' katen-o S-3sp
be-cuwa art-S	ram-te-ta' k pro-S-3po	yax S	ra-sk' am pre-loc	ksa adv
k' sa adv	ra-sk' a-m-k' sá' pre-loc-adv	weten-ksa' S-adv	p-alx-o 27-S-3so	te-p' -al-o pre-27-S-3so
ram-hal-a ' pro-S-37	tu-βe-k-a-wi pre-art-28-S	t-exa ' 17-S	k-ena-y-ok' 28-S-3so	k' sa ' adv
em-k' -eu-lukne 34-28-S	ram-che-t' e-nxá pro-S	ram-t' e' e pro-S	ahā int	pe-Lk' a ' art-S
xomo' adj	lwa ' S	xaiya ' adv	t-ema-t' u pre-S	ram-t' -xwen-e-lax pro-29-S-11
pe-se-mtan art-Splu	' amte-βe-ek' an pro-S-art-S	semtan Splu	te-ski-ntui ' pre-adj	mena' ko 24
tuk-sumun 2pp-S	kara' -mas neg-adv	ko-t-ap' e-L 31-29-S	na-me-n dem-S	ram-me-t-i ' pro-S-?
te-ta-p-oi' -yax pre-S-37-3ppas	pe-t' -ixe-p-let-o art-17-S-13-3sp	am-ko-t-apeL pro-31-29-S		ram-te-ta-u' la-ik ' pro-S-plu-14-3po

ra-ke-ra 'tén'-lo'	ke-ra-lo'	ram-mot'ox-o	ram-p-l'i-t'-x-o		
pre-neg-41-47	neg-47	pro-S-3po	pro-27-S-15-S-3po		
rum-ʔoki	kwa-p'	ma-lo-L	taaso	rum-ʔo-ki	ʔ-aau'
56-loc	S	S-14-S	adv	56-loc	17-S
ram-ʔe-tak'	pe-lk'a	ma'n-tén-ri	ram-ʔi	ʔa-mena'ko	
pro-S-3so	art-S	int-41-loc	pro-S	pre-24	
ʔi-ya-tén'	te-lo'	pox-ra'	ram-ko-neka'-ce'	ram-ʔ-isp-a'-l-ax	
pre-S-41	S	S-loc	pro-31-S-39	pro-29-S-37-12-3pas	
k-li'y-ai'-yax	rum-ʔo-ke	ʔ-aau'	am-k-lo-L	ro-βé	
28-S-37-3spas	56-loc	17-S	pro-28-S	pre-art	
be-lk'a	xomo-lwá'	p-a-lx-o	ra'-am-el-a'i	tere-ʔé'	
art-S	adj-S	27-S-3so	pre-S-12-37	con-S	
p-ol-ox	ko-ʔe'i-k'sá'	xomo'	lwa'	p-a-lx-o	ʔa-am-el-a'-i-ee'
S-14-S	31-S-adv	adj	S	27-S-3so	pre-S-12-37-39
yo ^u	ram-ʔ'-ia-ʔel	ram-k-olo-l-i'	ʔ'-ia'	be-la'	pesn-ai'yax
3si	pro-29-S-12	pro-28-S-4	29-S	art-S	S-37-3spas
aha-ti'	ʔu-ʔ-ʔ-ulol-a'iy-o'	be-la'	ram-ʔe'-ʔa'k	taas-tex	
S	pre-art-17-S-1-3sp	art-S	pro-S-3so	26-S	
no-vi'	k-'ames	ʔa-ko-iyu'	nu-k'-axa-ʔ'i	lwa'	ra-ke-rum'
dem-?	28-S	pre-31-3si	dem-28-S	S	pro-23-56
k-e-noxo	pe-k'-axa-te	ʔe-tien-p-ax	k'sa	pe-aha-ti'	
28-S	art-28-S	pre-S-?-3spas	adv	art-S	
ram-ko-tie-ʔ-o-k'sa'	ra'ke	ra-ko-ʔ'-ia-lo	ra'ké	se'xi'	
pro-31-S-15-S-adv	loc	pre-31-29-S-47	loc	Splu	
kas	ʔe-pasia-l-ten'	yo'	k'-ale'p	be-la'	ram-kn-yem-a'
con	pre-S-41	3si4	28-S	art-S	pro-31-S-37
aka-a-sn	mena'kn	ʔi-k-alep	ram-k-te'a-u-ye'	ram-ko-yem-a'm	
23-S	24	pre-28-S	pro-28-S-plu	pro-31-S-37	
ke-ʔe-ke'wu	te'a-u-ye'	meca-k	yo	ram-male-nt-a'iyax	
23-pre-3sl	S-plu	adv	3si	pro-S-37-3spas	
ʔe-no-nan-ax	pe-ʔ'axa-y-u-xten	te'a-u-ye'	no'	ʔ'-a-pen-ya'	
pre-S-3ppas	art-S-8	S-plu	49	17-S-1	
yo-ram	ʔa-ana-ʔ-a'iyax	te-hot'ap'	ca-xata'	ca-ke'n-n	
3si-con	pre-S-37-3ppas	pre-S	S	S-3so	
ʔ'-ia'	ram-p'-iax-te-ko	ʔ'ol-tén'	ca-xata'	p'-ca-ke'n-n	
29-S	pro-27-S-38-3so	num-S	S	27-S-3so	
ʔ'-ia'	pe-xwen	xoʔ'op	yax-tek'-ten	ʔ'ol	ram-ʔ'e'
29-S	art-S	S	S-38-41	num	pro-S
pe-selo-i'	k-'ames	ʔ'i-yax	ram-ʔ'e'	k-axai	telwane
art-S	28-S	pre-S	pro-S	28-S	adj

ra-ts-'am-is pro-29-S	co ^u L S	t'-iax 29-S	telwane adj	ka-m-xwen pro-S	pe-taxai' art-S
ram-t'i' pro-S	pe-selo-i' art-S	k-axk'o' 28-S	na' dem	se-telwane 36-adj	am-ea-kō-n-i pro-S-4
am-t'e'-ta'k pro-S-3so	ca-xata' S	ram-t'i' pro-S	tepen S	t-ule-t' 17-S	ka'-a-m-ko 31-S-3so
ʔel-ca-xata' pre-S	ram-ea-ke-n-i'-ts'i' pro-S-4-42		ca-xata' S	skomo' adv	gas adv
am-k'-neka' pro-28-S	p-eta'-ko 27-S-3so	k'-su-lukni 28-S		kas-skunmú con-adv	pe-t-eelk-o art-17-S-3sp
am-ʔe-ta'k pro-S-3so	a'imya' int	ram-hal-a' pro-S-37	um-ek'a'u'-yu 55-S-3sp	lk'el-t'e-pa-k'sa-t'-ya S-15-S-adv-29-S	
'am-ʔe-ta'k pro-S-3so	be-selo-i art-S	ma'a' S	eko'-ra' S-loc	mo'-p-iem-'o' 2si-27-S-3so	ʔum-ti-'u 2sp-S
ki-eak S-?	ma'a-wu S-3so	p-i-se-l-xo 27-S-3so	k'sa-ce' adv-39	ram-ko-p-a-m-ko pro-31-27-S-3so	
k-eʔte'o-p-lo' 28-S-47	ra-m-p'-ts'e-n-ʔ-ko pro-27-S-?-15-3so		em-k'weL 55-S	aka-a-so 23-S	o-yem-a' 32-S-37
ram-p'-ia-m-o pro-27-S-3so	pe-ʔ-oo-wu art-17-S-3sp	k'-so-men-xa' 28-S-37		k-ola'-le' 28-S-4	ʔo-p-ʔ-oo-wu pre-art-17-S-3sp
rum-me-p-ia-m-o pro-19-27-S-3so	ram-k-oniyi' pro-28-S	ʔe-ʔ'-ia' pre-29-S		ma-ke ^e wu 53-3sl	be-xaiya' art-adv
ra-m-pox pro-S	ru-ʔ-ʔoke 58-art-loc	k'aʔ' S	k-oho-m-a' 28-S-37	ʔo-ʔ-ʔ-olol-a'-i-yu pre-art-17-S-1-3sp	
koi-yem-a'-lo' 31-S-37-47	gas adv	yo'-lo-p-ʔ'-ia-t'-a'-i-yo 3si-47-?-29-S-?-37-3si			

PRAIRIE-FALCON AND WHITE OWL ¹⁴

teei'k' ka'met'i ruʔasna'k' paxo'to me'ea-k ramka'ak'a

White Owl hunted for the kangaroo rat. Smoked it constantly. Then sang:

ts'o'xwa-nle'to ti'exeple'to ti'exeple'to ts'o'xwa-nle'to
"Shrunk his foot! His foot shrunk!"

ra'mpesnai'ya ʔuʔsk'a'n' ra'mʔi'i yo' p'ia'mo ee'lo'
Then was heard by the hawk. Then told, "He knows already

ke^ewu' ʔiee'tep ra'mʔi'ts'omyae peʔika-kelu ra'mwa-ti'
where to die." Then liked the his song. Then told

ʔik'a'k'a ramka'i'yax ʔo-loli' rumʔi-lek' peʔo-loli'
to sing. Then put flute in hole the flute.

ra'mʔa-mumpai'i ʔa'au'u ʔiʔ'o'n ʔa'mwa-ti' rik-ak'a
Then drew out fire to burn. Then ordered to sing.

¹⁴ Told by David Mora, 1916; cf. p. 110.

rankópa-lxo t̃ipa'lo peṭ'ika'keL bek'Epe'snai'ya t̃upes̃k'a'n
Then not wished to use the song, that heard by the hawk.

p̃i'em.ó' t̃isa'l-i' peṭikake'l-o ko'pa'lxo t̃ep'a-lo
Knew that disliked the his song; not desired to use

peṭ'ka-ke'lo heyo'' palo'wu ka'k'ano'' ts'ututuya'
the his song, he used, Sang, "Tsututuya!

sk'a'analeto ra'm̃teta-ko'iyó' bet'oltén t'ika'keL
Skamanleto!" Then said, "Not that! The other song

stiyo''wan' ra'm̃ti' keṣtiyo''wan' t̃anka'sno t̃unxa'lanón
beautiful!" Then said, "Is beautiful then only thy use just now!"

ake'mxa'lanón anka'snostiyó''wín o'na'' kap̃t̃ika'kelo
"What to use just now?" "Only just now beautiful!" "This is the his song?"

qa' yo''vá' t̃'a'u-yo' t̃e-le'k' t̃a'm̃ta-Jelaik o'yo'
"Yes, that one." Seek hole, Then asked "Is that?"

'am̃ti' ka'ra' ake'rum sa'xwelyo'x ke'wu nama't̃'
Then said, "No!" "Where?" "Smooth-edged, where these animals."

ra'm̃te'auye' k'ie'ma' peṭe-lek' ram̃t̃epa'n' bek'aṭ'
Then hunted, was seen the hole. Then removed the grass

rup̃to'me-lo peṭe-le'k' ra'm̃tetak wik̃ō'u ram̃t̃uxwen
from the its edge the hole. Then told, "Here!" Then came

pehiyo'' ra'm̃t̃eyo'' na' a'm̃tetak-a-ká ra'mk'a-k'a
the he. Then told him this then to sing. Then sang.

ra'm̃tetak ko'iyó' ram̃ti ake'rumten taṭka'snotumha'lanón
Then said, "Not that!" Then said, "Which again?" "That only thy use

just now!"
ake'mba'la taṭga'snostiyó''wen ramka'k'a ram̃tetak
"What to use?" "That only just now beautiful!" Then sang. Then said,

ko'iyó' ake'rumten' tanga'sno notumha'lano'nó' o'na''
"Not that!" "Which then?" "That only just now. Thy use just now!" "Is this?"

yo'ovi' k'a-k'a paxo'to eko'' a'm̃tetak mena'ní'
"That is," Sang, Smoking it was. Then said, "Come close

ksa' t̃isk'am pa'ḡko t̃iṭa'm̃pta' ka'xa-nlo'ksa-lo'' ts'e'ik
more near! Can to emerge now!" Shouted loud already, "Look

k'sa' t̃isk'a'm ya'ko t̃uma'pa-u' yo'' ra'mxot' peṭ'a'a'u
very close! Watch to catch he!" Then blew the fire.

anpena-me'u'ksa eko' ra'mxot̃ rume' ramklo'ol peeuke'nto
Then approached very was. Then blew then. Then burnt the his eye.

ka'xa-tela' k'sa' t̃'o'ne-wu k'sa' euke-ntu ka'xa-tela'
Wept very. Scratched thus his eye. Wept,

t̃'ya' rumlé-m ram̃tetak' me'na-ko t̃et̃exo-ni' naka'met̃'i
went upwards. Then said, "Because poor this hunter;

ke'exo-nelwa''
poor man!"

White Owl was hunting for kangaroo-rats; he constantly smoked their holes to drive them out. He was feeling happy for he had found the body of Little Hawk and he sang "His foot is shrunk! His foot is shrunk!" Prairie-Falcon was looking for his younger brother and overheard White Owl's song. "He knows where he died" said Prairie-Falcon to himself; he wanted to hear the song again and told him to sing again. He went to the other end of the hole and inserted his magic flute and sucked out the smoke.

White Owl did not want to sing the song over because he knew it would anger Prairie-Falcon. So he sang instead "Tsututuya! Skamanleto!" Then said Prairie-Falcon, "No! Not that one! The other beautiful song! It is beautiful, the song you sang a moment ago." "Which one?" "The beautiful one you sang just now!" "This song?" "Yes, that one!"

Prairie-Falcon looked for the kangaroo-rat's hole. "Is it this one?" he asked. "No!" "Where then?" "The one with the smooth edge, where the animals are." Prairie-Falcon hunted and found the hole; he removed the grass from the edge of the hole. "Here it is!" he said. Then came White Owl. Again Prairie-Falcon asked him to sing and he sang the meaningless song again. "Not that one!" "Which one?" "The one you sang just now." "Which one?" "The beautiful one." Then White Owl sang again. "Not that one!" "Which, then?" "The one you sang just now." "This one?" "Yes, that one." Then White Owl sang it.

The hole was smoking. Then Prairie-Falcon said, "Come closer! He may come out now!" Then he shouted loudly, "Look very close! Watch and catch him!" White Owl put his head very close. Then Prairie-Falcon blew with his magic flute from the other end of the hole. The smoke and fire came out and covered White Owl's head. His eyes were badly burnt and he wept and rubbed his eyes. He wept and flew upwards. Then said Prairie-Falcon, "Because of this you will be a poor inoffensive hunter, a sorry man!" And White Owl's eyes are still black.

CRICKET AND MOUNTAIN LION¹⁵

xo't'up' beṭa'mul ruṭe-mo' beṭa'mul ranko'p'iem.o'
 Passed the puma by the his house. The puma then not knew
 tiṭā-m ṭip'ha'topa'ka pḥeuk'a'iko beṭip'hatopa'ka ra'mṭekatoṭ'
 that house of her dung cow. Tread it the of her dung cow. Then came
 rumteén ra'mṭe' me'na'k' rumeo'k'a'iyik maṭe-mo' nata-má'
 to outside. Then said, "Why to tread on their house these men?"

¹⁵ Told by David Mora, 1916.

ra'mti' beṭa'mul uwi'' k'arme' a'a'' taet'ma'lox
 Then said the puma, "Here we walk." "Yes, what thy desire
 rumeo'ka'yi'k naṭe'ma ruma'lox ruma'x k'a'Li''
 to tread this house? To desire to start fight?
 yaxtele'k' t'me'so-lta-to ri'xa'i yo'ra'k'a-ltena' 'enti'co'p
 Come thy soldiers tomorrow! Go to fight to see
 ta-lwa'' ma'a'wuhék beṭi'solta-to' yo'kē'wá'ra'yema-lt'e'
 who man. Bring I the soldiers where to see,
 yo'ra'ma'me't' ra'mi'xwene'lax ra'mtēta'k ruṭlk'a emya''
 to test." Then they came, then said to the coyote to go
 ts'e'ntek' oyo'ló ra'mpa-leLko pete'e'l' haq' maLtak
 see if there already. Then asked him the cricket. "Yes, tell him
 rume' enti'yaxte'L rume' ranki' ra'mti' betee'l'
 then to come then!" Then went, then said the cricket
 ruṭtisolta-to' k'mi'ka'tek' palwa'' ampia'tko ka'k'en
 to his soldiers, "Chase him off that man!" Then sent two
 lemu'm' ankepts'enla'ik emi'ka'teno ank'na'yi' me'tepts'e'n
 bees. Then stung him on his rump. Then fled when stung.
 ank'me't'ik'sá ṭipa'lxo ṭiṭo'k'onox t'xwento rumte'a''
 Then ran much to desire to reach soon to water,
 ṭipa'lxo rimo'klop belime'm' tereto'p'o'inox rumte'a''
 to desire to drown the bees. Therefore dove in water.
 pa'lxotela-wa betep'ni'' klu'wa' ṭeti'ca-k rumte'a''
 Wished to stop the pain. Long to be in water.
 yo'ra'mla-wá' betep'ni'' k'luwa' ṭetieko'' rumtea''
 Then stopped the pain. Long to be in water.
 koṭ'ia't'ia' lo'ee' k'e'cō'pa' lo'' k'Lu'wa'gás ra'mtamp
 Not wished to go already; afraid already. Long only then left
 ṭet'iyano'' ṭema'lta-ko ṭetiekol'lo ra'mi'konox ra'mtate'a-wi'
 to go to tell him that there was. Then came, then met
 t'uxwe'nto ruṭta'mul a'mta-lela'ik' oyo'ló 'aa'te'
 at last with the puma. Then was asked if there already. "Yes,
 eko'l'lo' roṣa'' ra'mka'ase'lo raṭkaa'sna k'wo'slop' k'sa''
 is already there!" Then added already, "Then but this powerful very!
 ta'p'iem'o'' ṭati'ca-kai' kwn'slop k'olop ra'mti'
 Who knows to go? Strong very!" Then said
 beṭa'mul ka'me't' rone'' ra'mi'telak ra'mti' peṭaxai''
 the puma, "Tiy then to beat them!" Then said the bear,
 kera' ko'teni-lak ṭeche'k' ṭ'o'xe'wn he'k' yo' ra'mi'iateL
 "No! No difference to me! Rub I." He then went,
 ka'te'a-uli' yo'ra'mti' beṭa'mul he'la' kute'e'Inoeri
 encountered. Then said the puma, "Wait! Stop here!

ki-he'k' in ti'ts'e-k' ko'nox tuŋke'u ruβrē' te'el'
Go I to see." Arrived at place of king cricket.

ra'mte' peŋa'mul oyo'lo" ai' ramo'mee' raŋkaa'snayo'lo"
Then said the puma if he already. "All right then you! Then but there already!

kaa'st'ka-me-t'rum' 'amp'ia'tleko rume' ti'solla-t'no
But we will try it." Then sent then soldiers.

mi-telan'k' k'sa' beŋaxai'' t'o'ne'wu k'sace' kaske'ra'
Stung him much the bear. Rubbed much but not

ti't'u xwe'nksa'' gaeko'' a'mti' belk'a' xala'' mpa-te'a''
did. Came more only were. Then said the coyote, "Jump in water!"

a'mti'ya kme-t'ik k'sa' t'ia' ramko'timxoya-k roptep'ni''
Then went running, but went. Then not endured the pain.

xwe-n ga'eko beleme'm' ki'sile' lo' gas umtika'wu
Arriving only were the bees all already only on his hide.

ra'nkiek'e-le' loga's me'ea-k ra'mte' pelk'a' kop'oitenox
Then rolled already only continually. Then said the coyote, "Jump

rumte'a'' yo'ra'ka-mk'Ne'lik kiek'e'le' gas me'ea-k
in water! Or to be killed!" Rolled only constantly

beŋaxai'' beenwa'' ee'tep'ya me'ea-k ta'i lo'gas
the bear. The skunk dying constantly, pest already only.

amk'na'iyi' belk'a' t'o'tga's ke'u tiha'la' ra'mti'ia'
Then fled the coyote, one only place to sting. Then went,

ku'yema' lo' ti'ke'wu ta'mye-ma' besto'' ra'mhala'ti'
not seen already to place. Then seen the fox. Then stung,

te'ia'yu yo' belk'a'' amk'na'yi' k'sa'' a'mteta'k
thought him the coyote. Then fled swift. Then said,

ko'mna-yi' mitela'tak' ramke'ra' ko'pt'a-co ko'telkeleŋxa'
"Don't run!" Attacked. Then no not noticed. Not returned

k'sa'' me'yo'' gas beŋala'iyu ko'tapa-nye' ki- ra'ke'
more. Same only the his appearance. Not overtook. Went there.

rank'o'ne-tak' bete'e-l' peee'wu beŋa'mul ra'mteta'k
Then won the cricket; beat him the puma. Then told

peŋa'mul ta-lwa'' homo'' uska'he'k' raga'smo' in
the puma, "Who man? Thou or I?" "Surely thou more

l'wa'' tihe'k' ts'ep'a'n tihe'k' l'wa'' rumo''
man than I!" "Good! That I man than thou!

ta-sko'meuka'yi'ktén temha'lo na' ta-má' numye'm'
But don't tread again their houses these men. In order to know

t'xo'mo rumeo'ka'yik temha'lo nata-má' meea'k' gas
how bad to trample their houses these men. Always only

e'ts'ep' t'mi'ea-kai' i'kera'' k'a'lí'' kots'ep' tiki'eβi'
to be good thy going to not fight. Not good to be thus.

gasme'ca-k ke'ra' ké'te'a-uwé' na'xumo-ni' ke'ra' ke'u
 Only always no not I seek the evil. No where
 ʔi'o'wahlik me'ca-k he'k' me'ca-k ra-nmo'' xo'ʔ'up
 to molest constantly I. Always and thou passest
 mo'' ruwī ʔa-ke'' ranhe'k' ke'se'ni' kiea-k ʔu-wi'
 thou to here road, and I walk going here
 ʔee'mo pike'lentxo he'k' me'ca-k wī ʔee'mo kera'
 his house, Circle I always here his house, No,
 ke'ya t'uk'wa'' ko'kie mo' ki- to'kena-tel runse'ni'
 not I go afar; not like thou go. Days, thy going
 ko'kie he'k' kī'yooté' eko' he'k' gas ʔuwī'' ʔee'mo
 not like me. Not I move, am I only here his house.
 me'e-ka-wī pox he'k' umʔo'ki ka'nhék' ke'ra' k'sá'
 When I am sleepy enter I to within, sleep I. No more.
 ka'a-ke'x k'sá' teʔiya'x ta'rake'' t'e'yo' he'k' ʔuwī'
 Not think more to come anyone. Alone I here
 k'ē ts'ep' sma'kai
 me. Good night!''

Mountain Lion was passing by the house of Cricket; he did not know that the cow dung was a house and trampled upon it. Then Cricket came out and said, "Why do you trample upon men's houses?" "I walk where I please," returned Mountain Lion. "Yes, but why do you want to trample on my house? Do you want to start a fight? All right! Let your soldiers come tomorrow and we'll have a fight to see who is the better man! I'll bring my soldiers anywhere to make the test."

Mountain Lion went home and gathered his soldiers, who were all the animals. They all came. Then he told Coyote to go and see if Cricket was ready. The latter went and asked Cricket if he was ready. "Yes," said Cricket. "Tell him to come!" Coyote left and Cricket said to his soldiers, who were the bees, "Chase this fellow away!" And he sent two bees after him; they stung him on his rump. When they stung him Coyote fled; he ran headlong in his desire to reach water and drown the bees. Then he dove into the water to lessen his pain and stayed a long time swimming in the water. At last the pain stopped but he did not wish to go; he was afraid. He was in the water a long time. At last he came out and went to inform Mountain Lion that Cricket was ready for him.

Coyote arrived and at last met Mountain Lion who asked him if Cricket was ready. "Yes," said he. "They are already there!"

Then he added, "But they are very powerful. Who knows what we can do? They are very strong." "Nevertheless we will try to defeat them," said Mountain Lion. Bear laughed derisively and said, "No, they make no difference to me! I'll just rub myself all over and brush them off!" So they went. Then said Mountain Lion, "Wait here! I will go and look." So he went and soon arrived at the camp of King Cricket. He inquired if they were ready. "All right! You fellows! We will try it!"

Then Cricket sent forward his soldiers; they attacked Bear in swarms. He brushed himself vigorously but could not rid himself of them; more came every moment. Then Coyote cried from his hiding-place, "Make for the water!" Bear ran; he could not endure the pain. The arriving bees covered his hide. He rolled over and over in the dirt. Coyote cried to him, "Jump in the water! Or you will be killed!" Bear rolled continually. Skunk, the pest, was dying too. Then Coyote fled, one sting was enough for him. He ran and was not seen again. Then the bees caught sight of Fox; they thought he was Coyote and stung him. "Don't run!" they cried to him, attacking him. But he took no notice of their entreaties and fled not to return. They did not overtake him.

And so Cricket won the fight; he defeated Mountain Lion. Then he said to him, "Now who is the better man, you or I?" "Surely you are a better man than I!" said Mountain Lion. "Good! I am a better man than you! And now never again go trampling on people's houses. You ought to know how evil it is to step on men's houses. It is good not to fight, but not good to be as you were. I never seek trouble anywhere and no one must molest me. You shall always wander along the roads and I will pass my time in the house. I constantly walk about my house; I never go far away, not like you. Every day you travel far, not like me. I do not wander much; I am always in my house. When I get sleepy I go inside and go to bed. That's all. I do not think that anybody may come; I am alone here by myself. Good night!"

GREAT HAWK AND THE COLD¹⁶

la'mka ta-stmetxa' txa'uhe'k li'exai taxts'a-kai'
 "South, what thy possession?" "Have I rain and wind
 taxte'umye'L ta'mtebespe-k' yaxtek'an ra'mt'i'o ruφkē'u'a-k'at'
 and ice!" Then said the hawk, "Let them come!" Then went to where tree
 k'ē'L k'o'noxrumt'k'a'ko ruφku'suluha'tak'at' ram'ek'o'
 dry. Came to its top of the straight tree. Then was

¹⁶ Told by David Mora, 1916.

rimasma'k'ai tamxwe'n bele'exai tax ts'a-kai' tax
through this night. Then came the rain and wind and

te'umye'L ta'meechai rankts'e-nu' bespek' te'icxa'i
ice. Then dawned. Then content the hawk to dawn.

ra'mpa'le'iko va'p'hanlo ta'et'met'a'wu ra'mti' bep'ba'nlo
Then asked him that east, "What thy possession?" Then said the east

pet'ba'wube'k' pets'a-kai' tax te'umye'L yaxtek'an
"Have I the wind and ice!" "Let them come!"

ra'mt'ia tse'ruφkē'wucó ra'm'eexa-its'e ra'mpa'le'iko
Then went again to where was. Then dawned again. Then asked him

va'le'e ranmo' tast'met'xa' ra'mte' bele'e
that north, "And thou? What thy possession?" Then said the north,

pet'ba'wube'k' ts'a-kai' taxle'exai taxte'umye'L yaxtek'an
"Have I wind and rain and ice!" "Let them come!"

ka' bespek' ra'mt'ia ts'e'ruβmē-yo' ta-k'aŋ
said the hawk. Then went again to same tree.

ramasma'kaits'e ramt'xwen pets'a-kai' taxpete'umye'L
Then night again. Then came the wind and the ice.

rank'uts'e-nu k'salo'ee' pakē'nu k'salo'ee' te'ho'netak
Then contented very already; thought very already that would win.

ra'mte rupk'ewe'L ranmo' ok'ewe'L taetmet'xa'
Then said to the west, "And thou? O West, what thy possession?"

ra'mte pek'ewe'L pet'xa'wube'k' le'exai tax ts'axe'L
Then said the west, "Have I rain and snow,

k'enne'L taxts'a-kai' taxwate'umye'L yo'ra'mte' pespek'
hail and wind and that ice!" Then said the hawk

rako'icxai'ya'teγksa-i" kept'a' ksa'luk'o'lup' xwe'n
that not wished to dawn yet. "I am cold already very!" Came

k'sa-iγk'o'lup' bek'eume'L amkept'a'k'sa k'oluplō
more yet much the hail. Then was cold more much already.

xwe'nksa lok'olup' k'enne'L tea'atén amkept'a'k'sa
Came more already much hail great. Then was cold more

lok'olop' rəγko'icxayak'sa'n k'olop' a"xwe'nk'sa
much already. Then not dawned more yet much. Then came more

lopts'axél yo'ra'ntom' met'xwen pets'a-kai' tamk'met'o'lo
already snow. And fell. When came the wind then thick already

pets'axe'L met'xwen ts'a-k'ai' yo'ra'into'm te'umya'ale'
the snow. When came wind then fell icicles

loyasβekē'wu ra'm'eexai ra'mteta'k keten.a'so naspek'
already only the his place. Then dawned, then said, "What befell this hawk?

nok'i'e t'ko'ticko' ee'tep'Ma'aste'k' ke'ra' te'k'ksa'
Seems that not is, has died! No appears

ko't'ico-pra'kē' ter'a'-ke'x tice'tep ka'me't ra'ts'e'k'
 not anywhere. Therefore think that dead. Try to see
 o't'icko' tuφtēf'o'ina'so o'ticko' k'o'ulox k'wo'l
 if is on the his seat, if is." Arrived people
 ruφkē'wu amko'yema' ra'mts'e'n pe't'o'oi'yu peta'k'a't
 to the his place. Then not seen. Then looked the its trunk the tree.
 ramku'yema' ra'mteta'k eko'' mas ra'la'ko pa'ts'a'xe'l
 Then not seen. Then said, "Is more below that snow;
 nokī'erum' ket'me'l pats'axe'l ka'me'ta xa'pek' o'ticko'
 seems mass that snow. Try dig if is."
 ra-meko'' yo'ra'mteta'krumo' ee'tepte'k' ts'a'telo-mtek'k'sa'
 Then was. Then said then, "Died! Was cold very.
 ter'to'm yo'ramteta'k' t'o'loinoxtek' bek'la'k'mak' ye'mmo'
 Therefore fell." Then said, "Finished the brave one! Henceforth
 rap't'e'la' kī'ya-te' ee'tepto'wa-t'lo' pepeta'ko t'ika'p't'ela'
 to be cold always. Dead he already who made that not be cold.
 t'ol ka'tap'nehe' no'' ra'ko'ma't'elene' no' tūta'tek'es
 One must henceforth to buy now blankets.
 ee'tep to'watlo' tuβepeta''ako tika-p't'ela' ha'klo piem.o'
 Died already this who made that not be cold. We already know
 ta'tica-kai'
 to go."

Great Hawk wished to test whether the weather was mild enough to be endured by the people without the aid of blankets. So he went to the South and said, "South, what have you got?" "I have rain and wind and ice!" replied the South. "Let them come!" said Great Hawk and he went and perched on top of his favorite dead tree. All night it rained and blew and froze. At last it dawned and Great Hawk was well content. Then he went to the East and said, "East, what have you?" "I have wind and ice!" replied the East. "Let them come!" said Great Hawk, and he went to his favorite place again. All night it blew and froze but when it dawned he was well content and went to the North. "And you, North, what have you?" "I have wind and rain and ice!" "Let them come!" said Great Hawk and he went to the same tree again. Then again it became night and the wind and ice came. But at last it dawned again and Great Hawk was very happy; he thought he would get the better of the winds.

Then Great Hawk went to the West and said, "And you, O West, what have you?" Then the West replied, "I have rain and snow,

hail and wind and ice!" "Send them along!" said Great Hawk and he went to his tree again. All night long the blizzard continued and Great Hawk said, "It doesn't want to dawn yet; I'm very cold!" And yet came more hail and it became colder. And great hail-stones fell. And it did not dawn yet. And then fell more snow. When the wind came the snow was very deep, and great icicles formed on Great Hawk's perch.

At last it dawned and the people said, "What has happened to Great Hawk? It seems he is not around; has he died? He does not appear anywhere, so we think he must be dead. Let's go and see if he is on his accustomed seat." Then the people came to the place but Great Hawk was not to be seen. They searched the trunk of the tree but could not find him. Then someone said, "There is something beneath the snow: it seems that there is a heap there. Let's dig to see what it is." And there was Great Hawk. Then they said, "He is dead! It was very cold and therefore he fell. The brave one is dead!" they said. "Hereafter it will always be cold; he who wished it not to be cold is dead! Now we must buy blankets; he is dead who would have it not cold. Now we know what we must do."

THE ANIMALS AND GOD¹⁷

<i>pekuwa'yu</i>	<i>sepasteene'ku</i>	<i>bek'e'nea-ni</i>	<i>repa'mt'a'k</i>
The horse	beseched	the God	to kill him.

<i>ra'teta'k</i>	<i>ko'ra'</i>	<i>atelo'yo'mo''</i>	<i>yo'puato'wi'</i>	<i>meca-k</i>
Then said,	"No,	his friend, thou.	He commands	always;

<i>seks'e'pgaet'ko'ka-mko</i>	<i>yo'puwato'wi'</i>	<i>sepeta'a'komó</i>
is good only that not kill him.	He commands,	shouldst do thou

<i>ṭume'p'ua'tuwi'</i>	<i>ṛuma'a'telo'i</i>	<i>sekots'ep'</i>	<i>ṛume'ta'k</i>	<i>k'i'evi'</i>
then commands	thy friend.	Is not good	to do	thus.

<i>ki'cho-ni</i>	<i>γás</i>	<i>ṭuma'a'telo'imó</i>	<i>yo'puatowi'</i>	<i>tako'myam</i>
Is poor	only	thy friend thou;	he commands.	And dost not see

<i>ka'ra'</i>	<i>ṭ'ika'wu</i>	<i>peexo'meet</i>	<i>wa-to'wi'</i>	<i>gás</i>	<i>sā'a'telo'itu'wa-tmo''</i>
not	to be	pity	command;	only	is friend who commands thou.

<i>tere'kie'vi'</i>	<i>se'ma'wumó'</i>	<i>rumat'na'lxo</i>	<i>ti'k'e'wu</i>	<i>mo''</i>
Therefore thus	is carry him thou	to thy desire,	his place.	Thou

<i>ṭixex'wu</i>	<i>yo'te'rets'e'p</i>	<i>ṭ'ikomṭ'ṭ'kax</i>	<i>ṭa'm'ko-mo'</i>
his foot.	Therefore good	that not thou killest him,	friend thou.

<i>ke'evitenmoṭ'ihoyo''</i>	<i>ts'ep'kaet'ip'ua'tui'</i>	<i>'iḡkera'</i>	<i>rasrake</i>
So art also thou of him.	Good only to command	so that not	anything

xumo-ní'
evil."

¹⁷ Told by David Mora, 1916.

pema't' sepaste'ene'ekotén bek'e'nea-níl tipa'nuk'ne'uko
 The beast begged him also the God to kill them
 na't'u-t'a'L pa'lxo tipo'taxlele'eko 'ensa-mo'x ra'mteta'k
 this people. Wished to gore them in order to die. Then told
 ruφk'e'nea-níl ke'ra' mo' lamxa'to me'pam-ka'
 by the God, "No, thou his food. When kills thee
 ko'p'te'e-wa-nuwi' rako'ki-emo'' pɬ'a'kioxomo'γás seke'ra'
 not thrown away, then not like thou. Killest him thou only; is not
 t'me'envi'' tumt'a'k'iax kera' ko'mieax peexont'a'womo'γás
 thy need to kill. No, not thou eatest. Poor killest thou only,
 rako'kiehiyo't' rumma'i sekiaxa'mmo'γás tuφhiyo't'
 that not like them to kill. Art eaten thou only by them."

The Horse begged God for permission to kill men. But God replied, "No! You are his friend; he must command you always. It is better that you do not kill him. It is his place to command, yours to do your friend's orders. It is not good to do as you ask. Your friend is poor also. Do you not see that it is not painful to be commanded when it is your friend who commands you? Therefore you must carry him to the place where he wishes; you are his foot. So it is not well that you should kill him, for he is your friend. Likewise you are a friend of his. It is well that he should command you and that you should not do him any harm."

The Ox also begged God for permission to kill people; he wished to gore them so that they would die. But God replied, "No, you are his food. When they kill you they do not throw you aside. You would not do that; you would only kill them. You have no need to kill them for you could not eat them. You would only kill the poor fellows; you would not do as they, for they kill you merely to eat you."

THE PELICAN ¹⁸

lê-lo'' betê'u kɬu'xo-ke tɛt'o'wat' k'wa'k'a'
 Long ago the pelican was murderer of people. Long
 beɬee'lko me'tk'onlox k'weL so''mate'la''wu rumtēmo'
 the his bill. When came people, invited them to his house
 enhoɬ'Lo'p' ɬenasma'k'ai ke'tau'laik' ekotet'oltica''wu
 to pass for this night. Told him was one his daughter.
 ke'tau'la-ik' kaxa'u ɬenalets'e'' ke'ra' ko'xaiyi'
 Told him, "Sleep with this woman! No! Not be afraid!"

¹⁸ Told by David Mora, 1916; translated from Spanish of Juan Quintana.

ts'ep' ka'xawan tuβake'wulits'ē' anhēyo' ka'utén
 "Good!" Slept at that her place woman. And he slept also
 tupsk'a'myās rune'yema-ni'kló tet'o'xo-tén' yo'ra'mk'o-l betē'u
 at the near only. When knew already to snore, then arose the pelican.
 tamt'iyax resk'a'm betē'u ramkla'pai pa'le'ltko
 Then went to near the pelican. Then three asked him,
 umka'xa-uló' umka'xa-uló' umka'xa-uló' rampe'na-iko
 "Art sleeping already? Art sleeping already? Art sleeping already? Then wounded
 ruφte'e'lko runtaa'wo k'sá' kí'evi' tī't'u rats'a
 with the his bill in his heart much. Thus is to do always
 pamk'nelko t'o'wat' yo'ra'mt'k'onlox bela' taxβesk'an
 killed people. Then arrived the raven and the hawk.
 pe'snai'yax tit'ieko' toxo-ke' ramca'moca-i'k tast'ma'lox
 Heard that was murderer. Then greeted him, "What thy desire?"
 yo'ra'nuha'te' yo'ra'mtetau'la'ik kaxa'u kakelo'ux
 Then remained. Then told them, "Sleep both together
 tuβa'kēu'tou' ramka'wu.ox tīekomo-yās amko'ta-té'
 in that her place girl." Then slept little only. Then made
 tet'o'xo-ten βelits'ē' seka'wu.ox an'ma'iko racrakē'
 to snore. The woman slept; gave her something
 enka'u yo'ra'mt'a'yax t'a'kat' k'ē'l ruφke'nuha'l
 to sleep. Then put logs dry in the places.
 yamke'ta'i tiŋo'xo-ten tik'i'e t'o'wuŋ' yo'ramk'o-l
 Then made to snore to resemble people. He then arose
 βelwa' yo'ra'mt'e' kī-ne'k' pŋ'a'k'ioxo yo'ra'mt'iyax
 the man. He then said, "Go will I kill them!" He then went
 t'isk'a'm yoramt'i' ka'xa-uló ka'xa-uló ka'xauló
 to near. He then said, "Sleep already? Sleep already? Sleep already?"
 yo'ra'mpena-ikó peŋa'kat' ramka'p'axtenop ksá'
 He then struck the log. Then split entirely
 peŋa'ako yo'ra'mtite'o'mnox tiŋa'xap yo'ra'mt'e'
 the his head. He then fell dead. She then said
 belits'ē' k'í'eva' kī'ya-to' t'ika'awu t'ipa-mko
 the woman, "Thus was always to do to kill
 t'o'wuŋ'
 people.

Long ago Pelican was a murderer of the people. His bill was very long. When people came by he would invite them to pass the night in his house. He would tell them that he had a daughter and would say to them, "You may sleep with the woman; don't be afraid!"

"Good!" the visitor would reply. Then the stranger would sleep with the daughter. Pelican slept close by and when he heard his guest snore he would arise and go there and ask three times, "Are you asleep? Are you asleep? Are you asleep?" And if he got no answer he would drive his long bill into his heart and kill him. That was the way he always killed people.

At last one day Raven and Prairie-Falcon came by; they had heard that there was a murderer there. He greeted them and asked them what they wished. They replied that they wished shelter for the night. Pelican agreed and they remained. He said to them, "You may both of you sleep with the girl!" So they lay with the girl but slept only a little. Then they pretended to snore. The girl was sound asleep for they had given her something to make her sleep soundly. Then they put two logs of dry wood in their places and hid themselves. They caused the logs to snore like people. Then Pelican arose and said, "I will go and kill them!" He came close by and asked, "Are you asleep? Are you asleep? Are you asleep?" And as he received no answer he gave a hard stroke with his bill. He hit the log and split his head all to pieces. He fell dead. Raven and Prairie-Falcon then awoke the woman who said, "That is the way he always did in order to kill people!"

COYOTE AND THE SALT WATER¹⁹

Lk'a	kakea'	kopia'mo	te'a'	ra'mt'ĩa	rumco:k'a'
Coyote	thirsty.	Not saw it	water.	Then went	to stream
tiṭa'eim	k'mit'ik'	pete'a''	ra'mke'l	peco:k'a'	
to drink.	Ran	the water.	Then dried	the stream.	
ra'mte'ehē'na'	peLk'a'	ra'mt'iyatén	ra'mkē-lts'e	tee'he-na'	
Then angered	the coyote.	Then went again,	then dried again.	Angered,	
ko'la-wa'	ṭakenwa''yu	ra'male'ntxo	ṭeli'he'	ṭumsk'ém	
not quenched	his thirst.	Then remembered	to go	to sea.	
kī'rumsk'ém	ṭiṭa'eim	te'a'	ka'eim	roḡte'a''	
Went to sea	to drink	water.	Drank	of the water	
kesio'hol	ra'mtese'na'	tupt'micimo	te'a'	yo'no'	
salty.	Then sick	from the drinking	water.	He "Good!"	
ra'mla-wa'	ṭa'kenwa'i	tiekumo''	yo'ra'm'pñewu'		
Then quenched	thirst	little.	He then seized it		
peha'ko	tax	ṭet'e'yina'i	ṭa'mt'ia	teṭameṭ'i	eumk'o'm
the his bow	and	arrows.	Then went	to hunt	squirrels.

¹⁹ Told by David Mora, 1916; translated from Spanish of Juan Quintana.

ra'mt'ierunku xai'ya t'e-le'k' t'epe'me'lko pecunk'o'm'
Then went to where many holes to catch them the squirrels.

ra'mtam pet'ol eumk'om' ra'mpa-lxo t'epe't'eine'ko
Then came out the one squirrel. Then desired to shoot it.

ra'msa-tel wi-t'e'peno ra'mts'okox pecunk'om' te'e'xe-na
Then murmured in his bowels. Then frightened the squirrel. Angered

pelk'a' me'na-ko t'its'o'kox pecunk'om' ta'mtam
the coyote because to frighten the squirrel. Then emerged

t'oltén ts'o'koxtén pelk'a' te'e'xe-nalo-ts' pa-ma'mpko
another, frightened again. The Coyote angered was again. Drew out

petse'uto tet'eyinai^{yu} ta'mto'xot'Nap' be'ika'no
the point of his arrow. Then ripped the his bowels.

yo'ramta'xap yo'rampet'e'yine'korumlém yora'myema'm
He then died. He then shot arrow upwards. He then was seen

tupek'a'n ko'yema' pelk'a' ta'mwa'Li' pexo-pniél.
by the hawk. Not was seen the coyote. Then sent the vulture

tete'a-uye' ra-myo'' p'ia'mo ra'mpokolea'ko
to seek. Then he saw him. Then reported

tuβesk'a'n' tamt'oke-lax
to the hawk. Then revived him.

Coyote was thirsty and could not find any water. He went to a distant stream to drink where the water was running. As he bent over to drink, the water ceased running and the stream dried up. This made Coyote angry but he went to another stream where the water was running also. This also dried up as he tried to drink and he became more angry at not being able to quench his thirst. Then he remembered that there was plenty of water in the sea, so went to the shore and drank some of the salty water. It made him a little sick but he said, "Good!" for it had quenched his thirst a little.

Then he took his bow and arrows and went to hunt squirrels; he went to a place where there were many squirrel holes in order to catch them. At last one squirrel came out and he prepared to shoot it. But his bowels made a noise and the squirrel caught fright and ran away. At that Coyote was very angry because the squirrel had become frightened. Then emerged another; Coyote's bowels murmured again and again the squirrel fled. Then Coyote became very angry; he took an arrow-point and ripped open his bowels. Just before he fell dead he shot an arrow high into the sky. This was seen by Prairie-Falcon but he could not see Coyote so he sent Vulture to find him. The latter found him and reported to Prairie-Falcon who came and revived him.

THE BEGINNING OF THE WORLD ²⁰

lêlo'' k' lu'wa 'lo' lice' ka'mp' beek'e'm ka'wi
 Formerly, long ago years, rose the sea. Hot

k'sa' ko'poťoť' na' pap'ene' 'eko kī'sile' homk'we'L
 very, boiled. Covered all world,

kī'sile' bekeť'po'i ta-s besantalusi'a ku'ra'
 all the mountains but the Santa Lucia; no

kopap'he'ne-ko k'io'x kī-e ka'k'eu ʔiexe'he'
 not covered it. Was high about two feet

ʔeyoxana' 'yu pete'a' ra'mť'eko' besai'yu rumť'ik'a'ko
 above the water. Then was the eagle on its summit

bekiť'po'i yo'ra'mťi' besai'yu ruβelaať' ʔako'ma-mko
 the mountain. He then said the eagle to the duck, "Not art able

rumiya' rumne' 'te'xo'' ra'mť'i' aa'' pa'mko he' 'k'
 to go to fetch earth?" Then said "Yes! Can I!"

ra'mpox umťoo'ke beek'e'm ra'mkep' te' o'p' ke'ra'
 Then entered to within the sea. Then tired, no,

koť'uxwen ra'mť'a-mp' ra'mť'iyatén p'me' totén ripo'x
 not arrived. Then came up; then went again, tried again to enter

ʔumťo'ke bete'a' ra'mp'xo'ewu skomu' te'xo'' ra'mť'a-mp'
 to within the water. Then seized little mud. Then arose

rumle-mo' peek'e'm tasmē'ť'k'onox sek'ee'tep' Ló
 to its top the sea. But when arrived was dead already.

tanbesai'yu pa-ma'mp'ko skomo' texo'' ruť'ieele' 'wu
 And the eagle took it little earth of the his nails.

ra'mp'ť' o'xne'wu beť'lexo' ʔa'm polť'ē' 'ko p'le'to
 Then rolled it the earth. Then cut it pieces.

peta' 'ako kī'ca' a'mpeta' 'ako keť'me'l' roβeť'olt'iya'
 Made it four. Then made balls of the one every.

ra'mp'Li' 'xo t'olt'ia' ʔuβe' keť'me'l' p'ok'ica''
 Then threw them one every of the balls to four

na' 'xo humk'wel yo'ra'm e-ap' peek'e'm
 points of world. It then sank the sea.

yo'ra'mť'eta-ha' rekī'e lo nata'a' humk'wel ke'ta-ha'
 It then was made to resemble already the today world. Were made

bakeť'po'i tax eo'k'alén tax ekon ʔa-m ʔiya'
 the mountains and streams and gullies. Then went

beek'e'm rump'akē'ulota' nata'a' ta-s meť'olk'we'l.
 the sea to the place already now today. But when one time

ʔa'pa-mko riʔa'xapte-he' beli'exai tax ʔaxapte-he'
 to be able to end the rain and to end

²⁰ Translated by Maria Encinales from Spanish of Juan Quintana, 1916. Cf. Ethnology, p. 190; present paper, p. 104.

umk'we'L tén taxrice't'lip' k'we'L tanbeek'e'm
 world again and to die people. And the sea
 seka'mp'ten yo'ramt'uxapte'he' umk'we'L
 rises again. It then ends world.

Many long years ago before there were any people on the earth the sea suddenly rose, boiling hot and flooded the whole world. It covered all the mountains except Santa Lucia Peak which remained about two feet above water. And there on the summit gathered all the animals with Eagle as their chief. Then he said to Duck, "Cannot you dive down and bring some earth?" "Yes," replied Duck. "I can do it." So he dove in the sea. But before he reached the bottom he became tired and had to come up again. Once again he entered the water and tried to reach the bottom. At last he reached bottom and seized a little bit of mud. Then he came up to the top again but when he arrived he was dead from lack of air. But Eagle took the earth that remained beneath his nails and rolled it into a lump. Then he cut it into four pieces and made balls of them. Then he threw one of the balls to each of the four cardinal points of the world. Then the sea sank and the world became as it is today. The mountains and the streams and the gullies were made and the sea retired to where it is today.

But some time in the future the rains may end and the world will end again and the people will die. The sea will rise again and the world will come to an end.

THE THEFT OF FIRE²¹

lōlo''	ke'ra'	ʔa'a'u'	taʃta-ene'eL	ʔu-ʔ'a'L
Long ago	no	fire	but some	people
pet'xa'wu	ʔa'a'u	ra'mʔeta'k'	ake'noʔa'a'sil	ra'mʔ'i'
had	fire.	Then said,	"What to do?"	Then said
pesna-'k'	hek	pa'mko	te'he''	ʔa'a'u'
the rat,	"I	can	to fetch	fire."
			Then said,	
ake'tumti''yu	rumme''	he'k	p'iem.o''	tii'o
"How thy ability	to fetch?"	"I	know	to do."
			Then went,	
k'mi't'ik'	k'sa'	ra'mt'k'o'nox	runkē'u	peʔa-ene'eL
ran	hard.	Then arrived	to their place	the other
ʔ'oʔ'a'L	ra'molox	ramoee''	pa'xo	petits'o''e'wo
people.	Then jumped	in flames,	put	the his tail
				in fire.
ʔa'maca-L	ramt'ia'to	teme't'ik	pa'xaiyo	ʔee-a'p'
Then lighted,	then went	to run.	Feared	that extinguish

²¹ Translated by Maria Encinales from Spanish of Juan Quintana, 1916. Cf. p. 105.

petowo'iyu	a'mtok'o'nox	ʔiko'e-a'p'	t'uxwento	tecu'ne'
the his light.	Then arrived	to not extinguish.	Finally	kindled
rumkē'wu	ʔika-mpo't'			
in place	their field.			

Long ago the people had no fire, but some other distant people possessed it. So they said, "What shall we do?" Then the Kangaroo-rat said, "I can go and fetch fire!" "You!" they said. "How can you fetch fire?" "I know what to do," he replied. So he ran hard until he arrived at the camp of the people who had fire. He jumped in the fire and his tail, which was then long and bushy, caught fire. Then he ran away with the people in pursuit. He was afraid that the fire would go out before he arrived but he managed to arrive with the tail still burning. So the people kindled their fires from this and ever since have possessed fire. But Kangaroo-rat's tail is no longer bushy.

HOW PEOPLE WERE MADE ²²

besai'yu	pa'xo	t'ol	lits'e'	rumkē'wu	belk'a'
The eagle	placed her	one	woman	in his place	the coyote
oxpapa'iyu	pa'lxo	ʔemo'lox	tuβlits'e'	k'a'	
in order to cohabit with her.	Desired	to mount	to the woman.	Said	
βesai'yu	molo'xrena'	lits'e'	ra'mpeta'ako	ʔam	
the eagle,	"Mount to this	woman!"	Then made,	Then	
me't'mup'	ʔamme'ce'	ʔeci'tip	ʔuβkē'wu	belits'e'	
when finished	then half	to die	in her place	the woman.	
ra'mt'iyax	besai'yu	rip'eo'ke'no'	ra'mp'ia'awu	pelits'e'	
Then came	the eagle	to revive him.	Then left her	the woman.	
komp'Lo'	ʔehayo'	ra'mt'e'	belk'a'	me'na'kono'	
Finished already	with her.	Then said	the coyote,	"Ah, how	
ʔe'ts'e'po	na'lits'e'	k'ts'e'p	k'pe'ptelop'	lu'wa'yás	
to be good	this woman!	Is good	too much."	Time only	
ʔeticko'	ʔece'tep'ya'	ram	la'ut'a'	ke'ra'	lo'
to be dead.	Then left.	No	already		
ko't'ise	ʔi'ekoi'	k'lu'wa'nóp'	tiskumu'	ʔa'mʔica-kts'e'	
not strong	to be.	Time was	little	Then began again	
belk'a'	ʔemo'lox	roβelits'e'	taske'ra'lo'	ko'citip'ya'	
the coyote	to mount	to the woman.	But not already	not died.	
ki'enak'ts'e'p'	k'a'	belk'a'	ke'ra'	ko'citiptén'	
"Thus this is good!"	said	the coyote.	"No	not die again!	

²² Translated by Maria Encinales from Spanish of Juan Quintana, 1916. Cf. *Ethnology*, p. 190, 191; present paper, p. 104.

me'mten k'ts'e'pLo'' kī'evī' ram teta-xa' be't'oŋ'aL
 Now is good already thus is then to make the people!''
 ra'mŋ'e' besai'yu kts'e'p' k'o'lop'
 Then said the eagle, "Is good very."

Eagle placed a woman with Coyote that he might cohabit with her. He had just formed her and as yet she had not been tested. Coyote desired to mount the woman. Then Eagle said, "Mount this woman!" Coyote obeyed but when he had finished he was nearly dead. Eagle came and revived him. Then Coyote retired and said, "Ah, the woman is good; she is too good!" He was dead only a short while; then he retired. He was still very weak. A short time passed and again Coyote desired to mount the woman. But this time he did not die. "Now it is all right," said Coyote. "I did not die again! Now it is good; this is the way to make people!" Then said Eagle, "Very good!"

THE TAR MAN ²³

le-lo' t'olk'we'L eko'' t'ol t'o'xo-ke pet'xa'wu
 Long ago one time was one murderer. Had it
 t'ol cla'' ka'p'e-L sma'k' ko'poŋot'ena' me't'uxwen
 one basket filled asphalt, boiled. When came
 ta'ra'ke ra-ts' p'ea'mo'eko aki'e we'e'sxa
 anybody there greeted him, "Howdy, cousin!"
 pespolo'xo peme'no ra'mp'lixo runŋoo'ke besma'k'
 Seized him the his hand. Then threw him to within the tar.
 ramt'xwen rume' beek'a'n tax bela'a'' ra'mea-moea'yi'k
 Then came then the hawk and the raven. Then was greeted.
 ra'mŋispa'lax beme'no peek'a'n pespolo'xo pet'olme'no
 Then seized the his hands. The hawk seized it the one his hand
 tanbela'a pespolo'xo ién pet'olme'no ra'mliya'iyax
 and the raven seized it again the one his hand. Then was thrown
 ŋumŋoo'ke besma'k' ra'mŋ'o''x besma'k' ŋuβeta-kī'
 to within the tar. Then kindled the tar by the making
 ŋa'a'u' ke'ta'i' ŋa'a'u' ruβeteta'kol ra'mna'yi'
 fire. Made fire with the fire-drill. Then fled
 bekt'o'xo-ke peke'lent'xo kī'sili' humk'we'L ko'teo-xna'
 the murderer. Circled all through world. Dropped
 gās t'ia' pema'k' tanbek'u teto'm' t'ia'
 only each the tar. And the place to fall every

²³ Translated by Maria Encinales from Spanish of Juan Quintana, 1916. Cf. *Ethnology*, p. 194; present paper, p. 108.

besma'k' sek'o'lpax saxe't' ump'a'wu beket'po'i'
 the tar, sprung up mescal. Its other side the mountain
 ka'se ʔisantalusi'a yo'ra'mcetep' bekt'o'xo-ke ramump'a'
 named of Santa Lucia he then died the murderer. Then there
 ra'mt'ieko' kite'a' saxe't'
 then are large mescal.

Once upon a time long ago there was a man who murdered the people. He had a basket full of boiling tar and when anybody would come by he would greet him and say, "Hello, cousin!" Then he would offer to shake hands with him and as soon as he took his hand he would throw him into the boiling tar. Prairie-Falcon and Raven were scouring the country to find and kill all the murderers and came to him. He greeted them and extended his hands. Prairie-Falcon seized one and Raven the other and they threw him into the boiling tar. Then they set fire to the tar with their fire-drills. All ablaze the murderer ran all over the country with the blazing tar dropping. And everywhere that a drop of tar fell sprang up a plant of mescal. On the other side of Santa Lucia Peak the murderer died and there are great quantities of mescal.

PRAIRIE-FALCON AND WOODPECKER ²⁴

bela'' taxek'a'n p'ia'mo't' pete'a'm' ak-i'e
 The raven and hawk saw the woodpecker. "Howdy,
 oetelua'' tastumta'aket p'xe'cohe'k' pe.axa'ko't
 old man! What thy deed?" "Bury I the their bones
 be'ot'a'l ksa'moxló p'xa'p'ko eko'' p'xe'eo
 the people died already." Digging was burying
 onko'ticop' pe.axa'k'teno ts'ep' ʔanbela'a' p'xe''ewu
 in order not to see the their bones. Good! And the raven seized it
 t'ol k'ma't'a-l ts'ep' oetelua'' p'ma'kahe'k' na'
 one white. "Good! Old man, give thee I this!
 ma'xra't'mo'na'yi ʔa'mt'i' xai'ya' ts'e'p'ha-ni' ra'mpa-xo
 Put on thy waist." Then said, "Many thanks!" Then placed it.
 ra'mpeta'ko k'ts'e'p' ke'ra' ko'ʔipt'ak'ai'yaX tas
 Then made him good; no not was killed. But
 me'luwa' ʔa'mpeta'ko ts'e' xumó'' p'wa'tó'
 afterwards then made him again bad. Sent
 besmeko'i' ʔept'a't'ko be'ot'wut 'yo' tereʔee'xai'ya'
 the rattlesnake to sting the people. He therefore fierce
 nata'a' besme-ko'i'
 today the rattlesnake.

²⁴ Translated by Maria Encinales from Spanish of Juan Quintana, 1916.

Raven and Prairie-Falcon met Woodpecker. "Hello, old man! What are you doing?" "I am burying the bones of the people who have died!" For Woodpecker was also a murderer of the people. He was digging a hole in order to bury the bones so that they could not see the bones of the people he had killed and eaten. Then Raven seized something white like a handkerchief and said, "Good! Old man, I'm going to give you this present. Put it around your waist!" "Many thanks!" said Woodpecker, and he put the cloth around his waist. At first it did Woodpecker no harm but later it bewitched him and made him die. They did this because Woodpecker was evil and had sent Rattlesnake to sting the people. It is on this account that Rattlesnake is dangerous today.

COYOTE AND WILDCAT ²⁵

bełk'a'	p'ia'mo	e-'ts'	pa'lxo	rept'e'kaxo
The coyote	saw	<i>pinacate</i> .	Desired	to kill him.

ra'mt'e' bełk'a' taet'mi'yo'k' weł'a'amiko kīte'a
Then said the coyote, "What thy doing, friend?" Standing

eko'	bełk'a'	ra'mts'ok'ox	e-'ts'	ra'mt'i'	eko''
was the coyote.	Then frightened	<i>pinacate</i> .	Then said	"Am	

he'k'	riyo''	k'a'lsalhe'k'	ko'	rumkē'u	lime'm'	ya'x
I	here	praying I."	Was	their place	wasps.	"Come!

alsa'L	riyo''	ta'mt'i'	pełk'a'	'aa'	palxohe'k'
Pray	here!"	Then said	the coyote,	"Yes!	Wish I

te'pi'snox	ta'mt'i'	ts'ep'	ra'mpa'xo	betiek'o'olo
to hear!"	Then said,	"Good!"	Then placed	the his ear

tu'msk'a'm	ruβeke'wu	beleme'm'	a'mt'i'	kesna''
to close	to the place	the wasps.	Then said,	"Is true!"

k'lu'wa'nop'	rełtiko''	ra'mna-yi'	pe'e-'ts'	ta'mbełk'a'
Long time	to remain.	Then fled	the <i>pinacate</i> .	Then the coyote

sep'xa'p'ko	pekē'wu	beleme'm'	ta'mta-melep'
dug	the place	the wasps.	Then came out.

ra'mtep'ts'e'ula'ik	homt'a'ako	kepts'e'ula'yik	k'o'lop'
Then stung him	on his head.	Was stung	much.

ke'ta'i'	ti'na-yi'	pe.e-'ts'	peta'ako	ti'ko'lu-ne'
Made	to flee	the <i>pinacate</i> ;	made him	fool.

Coyote saw Wildcat and wanted to kill him. So he asked, "My friend, what are you doing?" He was standing close by. Then Wildcat was frightened and replied, "I am praying here. Listen to

²⁵ Translated by Maria Encinales from Spanish of Juan Quintana, 1916.

the congregation!" For there was a hive of wasps. "Come and pray!" said Wildeat. "Surely!" said Coyote. "I want to hear it!" "Good!" said Wildeat. Then Coyote put his ear to the ground near the wasps' nest. "To be sure!" he exclaimed. He remained there a long time listening while Wildeat fled. Then he began to dig the wasps' nest. They swarmed out and stung him all over his head; he was stung very badly. Wildeat caused him to run away; he made a fool of him.

COYOTE AND HARE²⁶

lě-lo" k'lu'wa'ló' lie-e' bek-o'l' k't'ó'xo-ke tén
Long ago, very long ago years the hare was murderer also
teṭ'uwnt' tanbelk'a' pa'lxo tept'e'kaxo bek-o'l'
of people. And the coyote wished to kill the hare.
tan belk'a' k'ts'e'p' k'o'lop' tepe't'e'yine'ko k'a belk'a'
And the coyote was good very to shoot arrows. Said the coyote,
eko'ra' ts'ep' p't'e'kaxone'k' tanbeko'l' seka'wueko''
"Is good! Kill him will I!" And the hare sleeping was.
ṭant'o'l eteluwa'' lk'a' k'a'' micko'' rīto'wai'yū
And one aged coyote said, "Be here, this side!"
ra'mtīeko' ra'mp'ia'mo ra'mpet'eine-ko teik taske'ra'
Then was; then saw him. Then shot arrow. *Chik!* But no,
ko'pena-iko ra'mpeta'ako ṭ'a'a'u' beko'l' tept'o'anko
not hit him. Then made fire the hare to burn him
belk'a' me't'e'ne'k' k'sa' k'wa'' k'a'' pe'e'ko'
the coyote. "Shoot him more distant!" said the his father
belk'a' tanbeṭ'a'a'u' seka'tanop' taske'ra' ko'ṭapan-ye'
the coyote. And the fire spread, but no, not overtook.
ṭam ku'we'nox ke'ra' ko'eitip' ka'te'a'mp'a' k'o'lop'
Then returned. No, not died. Was evil very
beko'l'
the hare.

Many years ago Hare also was a murderer of the people. But Coyote wished to kill him and eat him. And Coyote was a fine shot with bow and arrow. So he said, "All right! I'll go and kill him!" He crept up and found Hare asleep. Coyote's father, an old man, went along with him and said, "Remain here, on this side!" Coyote saw Hare and shot an arrow at him. *Chik!* But he did not hit him. Then Hare awoke and made a fire to burn Coyote. For he was a

²⁶ Translated by Maria Encinales from Spanish of Juan Quintana, 1916.

great magician. "Shoot him from farther away!" shouted Coyote's father. The fire spread rapidly but did not overtake Coyote. He returned alive. Hare was a very evil man.

COYOTE AND RABBIT ²⁷

bełk'a' pa'lxo resti'yo'owan kie bema'p' ra'mt'e'
The coyote desired to beautiful like the rabbit. Then said
a'keřumti'yo řet'xa'uwut' ba'řumla'k'oi' řa-m'ři'
"What thy deed to yellow that thy neck?" Then said
pema'p' pox he'k' ki'ya-te' rumře'le'k' řam't'e'
the rabbit, "Enter I always in holes!" Then said
bełk'a' poxue'kiya-t'e' rumře'le'k' ra'mt'iya bema'p'
the coyote, "Enter will I always in holes." Then went the rabbit,
p'ne'ewu k'a'ř' ra'mpopo'xo' řumře'le'k' kē'ewo
brought hay. Then threw it in hole his place
pelk'a' ra'mpa-xo řa'a'u' ram yo'teretet'axa'wut'
the coyote. Then put fire. Then he therefore yellow
bełk'a'
the coyote.

Coyote wanted to be as beautiful as Rabbit. So he asked him, "What did you do to have such a yellow shoullder?" Rabbit was afraid of Coyote and told him, "Why, my neck is yellow because I am always going into holes in the ground." "Good!" said Coyote. "Then I'll go into holes too!" So he found a hole and went in. Then Rabbit went and got some hay and threw it into the hole behind Coyote. Then he set fire to it. Coyote was badly burnt in trying to get out of the hole and on this account has a yellow patch behind his ears.

COYOTE AND BULL ²⁸

bełk'a' pa'lxo řepi'exo beto'lo řam ħumř'a'a'k'e'
The coyote desired to eat the bull. Then in road
ra'mp'iya-mo beto'lo tax bepoře'ka řa'mt'e' ak'i'e
then saw him, the bull and the sheep. Then said, "Howdy,
o'ta'mi-ko a'ket-me'ke'no' make'ra' ke-řas řa'mt'iya
friend! Where thy going now?" "To such place only." Then went
pelk'a' řa'mpa-lxo řepeře'kaxo pa'lxo řepi'exo
the coyote; then desired to kill him. Desired to eat.
k'o'k'ol'cele' řiya' me'na'akonó řets'e'p' pa'řuma'a-tela'
Conversed went. "Ah, how to be good that which carriest

²⁷ Translated by Maria Encinales from Spanish of Juan Quintana, 1916.

²⁸ Translated by Maria Encinales from Spanish of Juan Quintana, 1916.

t'iyaxra' k'io't'ne' t'iyax ta'sta'ava' tuma'a
there, shaking there! What are to carry

t'iyax ka'ke'lt'a me'na'k' umpa'lxo haq k'o'L
there?" "Testicles, why thy wish?" "Yes, hungry

he'k' k'o'lop' tam peṭ'a'kha'ko beto'lo beṭuma'awu
I very!" Then cut them the bull the his cargo,

ka'ke'lt'a p'ma'keṭo belk'a' ram'xwe'nto ṭepi'exo
testicles. Gave him the coyote. Then at once ate them.

me'na-'akonó' tít's'e'p' ṭako'mnal. ke'ra' pa'lxoten
"Ah, how to be good!" "Not thou filled?" "No, desire more

he'k' tas ke'ra' lo' ra'mō-yo' pa'lxo in ṭepept'e'kaxo
I but no already!" Then he desired still to kill him.

'aⁿ beto'lo sek'lexa'lo' k'a' pa'lxo in
Then the bull feared, said, "Desires still

ṭipa'mha'k' tuma'lox runna'L mi'exo'ha'k' an
to eat me!" Thy desire to fill, eat me then

kī'sili ts'e'p' pa'mkohe'k' ṭe'Yexo'ka' kī'sili'
all!" "Good! Can I to eat thee all!"

ra'm't'e' beto'l mite'a'ra' eaxa'ta'γās one'po'x
Then said the bull, "Stand here! Open mouth only to enter

ṭa't'me'lek' ts'e'p' ra'mea-xata' peta'ako k'sa"
in thy mouth." "Good!" Then opened mouth, made it very

kite'a' beṭe'lxo pa'lxo repe'penxo kī'sili' ma'we'xe'
large the his mouth. Desired to swallow all. "Stand

ank'sá' ra'm't'iyax ṭem'ṭ'ik' bepole'k ra'm'otaxle-ko
firm!" Then came to run the sheep. Then butted him

nmṭe'lxo ra'm'p'ij'ixo ka'p'haxtenop' peṭa'ako yo'ra'm
in his mouth. Then tumbled, smashed the his head. He then

ee'tep belk'a' ra'm't'ia' bēlo'lo ke'ra' ko'eitip
died the coyote. Then went the bull. No, not died.

p'xe'wutén beka'ke'lt'a pa'xotén ra'm't'iarumé
Seized again the testicles, placed them again. Then went away.

Coyote was desirous of eating Bull. One day he met him and Ram in the road and greeted them, "Hello, old friend! Where are you going?" "To such and such a place" replied Bull. Coyote went with them for he desired to kill Bull and eat him. They walked along conversing. Finally Coyote said, "Ah, how good those things you are carrying there shaking look! What are they?" "My testicles" replied Bull. "Why, do you want them?" "Surely! I'm awfully hungry!" So Bull cut off the things he carried, his testicles, and

gave them to Coyote who immediately ate them. "Ah, how good they are!" he said. "Aren't you full?" asked Bull. "No, but there aren't any more!" And he still wanted to kill Bull.

Then Bull was afraid and said to himself, "He still wants to kill me!" So he turned to Coyote and said, "If you want to be full, you had better eat me whole!" "Fine! I can eat you whole!" "All right," said Bull. "Stand there and open your mouth so that I can jump into it!" "Good!" said Coyote. And he opened his mouth very wide; he wanted to swallow Bull whole. "Stand firm!" said Bull and he motioned to Ram. The latter ran hard and butted Coyote so hard in the mouth that he fell down with his head smashed. Soon he died. Thus Bull did not die. He went and cut open Coyote and took out his testicles and put them on again. Then he went away.

COYOTE AND THE SUN ²⁹

bełk'a'	peta'ko	eko'	xa'ak'o	rumtiatakewu	
The coyote	making	was	his arrow	in his road	
pena'	ta'mt'iyax	pena'	we'ten	le-ta'na'	
the sun.	Then came	the sun	about	noon.	
ra'mt'uxwen	tuñkē-wu	bełk'a	peta'ako	eko'	
When arrived	to his place	the coyote	making	was	
xa'k'o	eko'	tuwo'iyu'	temit'o	tipa'uyo-ko	
his arrow.	Was	his fire	with which	to heat it.	
rampet'xa'wu	smak'	temit'o'	tepa'tuñk'a-xo	ramti'i'	
Then had	tar	with which	to stick.	Then said	
bena'	tast'mi'yo'k	riyo'	ra'mti'i'	peta'ako	he'k'
the sun,	"What thy doing	here?"	Then said,	"Make	I
xak'	eko'oyas	bena'	pts'e'eko	kite'a	eko'
arrow."	Was only	the sun	watched.	Stopped	was
risknumu'	ra'mti'i'	ts'ep'	meta'k	naexomek'i'	
little.	Then said,	"Good!	Make me	this favor	
tuñme'ta'k'	rixo'tup'	he'la	ra'mti'i'	βelk'a'	
to permit me	to pass!"	"Wait!"	then said	the coyote.	
ra'mtite'a	gae-ko	bena'	ke'ra'	ko'se-ne'	ts'ep'
Then stopped	only was	the sun,	no	not journeyed.	"Good!
manata'x	anxi'xo'tup'	ramke'ra'ko'sa'		bełk'a'	
Allow me	to pass!"	Then no, not spoke	the coyote.		
ra'mt'iekots'e	skumu'	ra'mt'e'	rume'	Lk'a'	ts'ep'
Then was again	little.	Then said	finally	coyote,	"Good

²⁹ Translated by Maria Encinales from Spanish of Juan Quintana, 1916.

a-n ʔa'mtite'a ra'mp'ne'wu pexa'k'o tax pekisili'
 now." Then arose, then took the his arrow and the all.
 tanbena'' seki'lo' tanbe'k'a' seeko'γás peta''ako
 And the sun went already and the coyote was only making
 eko' xa'k'o
 was his arrow.

Coyote was making arrows in the sun's path. About noon the sun came along and when he came to the place, Coyote was making arrows there. There was his fire to heat the arrows and he had tar with which to stick on the point. Then the sun said, "What are you doing here?" And Coyote replied, "I am making arrows!" Then the sun stopped still a little while and watched him. Then he said, "Good! And now please let me pass." "Wait a couple of moments" replied Coyote and the sun waited a little longer without continuing his journey. "Good!" he said again. "Let me pass!" But Coyote did not answer and the sun waited a little longer. At last Coyote said, "All right now!" And he arose and took his arrows and everything. The sun continued his journey and Coyote continued making his arrows.

THE SUN AND THE MOON ³⁰

le-ló' seksa'teL kī'sili' pena'' tax ʔats'o'opi'
 Long ago they spoke all, the sun and the moon
 taxbetatewa'nīL kī'sili' pema'ʔ'e'lak ʔa'm'te' bena''
 and the stars, all the animals. Then said the sun,
 naʔ'oʔ'a'L se k'la'ma-ilak' k'o'lop' k'la'mhaL
 "This people are eaters very. Eat they
 gaskī'ya-te' ke'ra' ke'yank'a' ʔik'a-weL ra'mho'yi'
 only continually. No, not I see them to sleep." Then replied
 beʔats'o'opi' ke'ra' ke'ra' ku'kievi' ki'kauyela-te'e'
 the moon, "No! No, not thus is! Are sleepers!
 k'a-weL gas kī'ya-te' me'yina'ne'elk' ke'ra'
 Sleep only continually! When see them no
 ki'yank'a'' ʔila'mhaL
 not I see them to eat"

Long ago everything was able to converse, the sun, the moon, the stars and all the animals. Then the sun said, "These humans are great eaters; they eat all the time; I never see them sleep!" But the moon replied, "No, it is not so! They are great sleepers; they sleep all the time. When I look I never see them eating!"

³⁰ Translated by Maria Encinales from Spanish of Juan Quintana, 1916.

PRAIRIE-FALCON, XUI AND THE SERPENT ³¹

eko' ekak' sotope'no pexu'i to'xo-ke tet'a'uwať'
 Was crow, his guardian the Xui, murderer of people.

p'le'ixo u-mp'a'ulak' p'i'cho kats'a-ne'L mo-pa'k'
 Threw them other side ground. Ate them little birds. Laurel

ske'' mat'o'lni' ek'a'n la' k'se''ne' k'te'a'uye'
 was on hill. Hawk raven walked. Sought

pexu'i ta'miyema' pesk'a'k' k'ma'lauk ka'eil
 the Xui. Then seen the crow. Told him seated

mat'o'lni' yo' meteo'k'a' hala'tome a'mf'yaL
 on hill. "Ah! Be quiet! Shoot now!" Then went

tome'' p'li'yaix a'metitea' peto-lo-lai'yo' ame't'ya
 then. Was thrown, then alighted the his flute. Then went

bila'' yo' hala'tomé mo'ts'a bala'rome a'mep'alo
 the raven. "Ah! Shoot now! Thou next! Shoot now!" Then shot him.

pale'lko pet'a'ko ta-li-ye'' xwen pesk'a'n taxla''
 Asked him, tied him serpent. Came the hawk and raven.

te'a'uye ta-li-ye'' ka't'a-pelt'a k'ye'ma yo' k'a'
 Sought serpent striped. Was seen. "Ah!" said

pesk'a'n la' yo na t'ma'lox k'ai'isailk'
 the hawk raven. "Ah! This thy desire!" Was spied.

ke't'eyini-k mo'ts'a yo' me-teo'ka' k'a'tume''
 Shot him. "Thou next! Ah! Be careful!" said then.

a-na-x'e'' yo-lo'' k'iyaxlo'ba' ts'a'kai'' k'a'tumé'
 "Run! Ah! Already comes already that wind!" Said then

ku'mxa-t'a p'enla'k'o te'lp'a' p'ye'nt'onoha'k
 "Don't cry! Quick! Hurry! Approach will we!

k'o'loxlo-ha'k' male'ntax tumtea'xal ki'yaxno' eko't'
 Arrive already we! Remember thy power Come will snake!

yo' hala'tomé mama'mpek t'mi'eik' mult'i'k'
 Ah! Shoot now! Draw thy knife! Cut him

paeko't' yo-lo''
 that snake! Ah!"

Crow was the guardian of Xui, the murderer of the people. The latter used to kill them by throwing them over the hill where some little black birds would eat them. There was laurel on the hill. Prairie-Falcon and Raven came along looking for Xui in order to kill him. Crow saw them and told Xui that they were there on the hill. "Be quiet now!" said Prairie-Falcon. "Now hit him!" They

³¹ Told by José Cruz, revised by Pedro Encinales, 1910. Cf. *Ethnology*, p. 192; present paper, pp. 93, 110, 112.

went closer but Xui seized Prairie-Falcon and threw him over his head. But Prairie-Falcon possessed a magical flute and alighted on this without injury. Then Raven came up. "Hit him! It's your turn now! Hit him!" Then Raven took good aim and knocked Xui's head off.

Then Prairie-Falcon and Raven came in search of the great striped Serpent. They saw him. "Ah!" said they. "This is the fellow we are after!" Prairie-Falcon shot at him but Serpent spied them. "Now it is your turn! Be careful!" cried Prairie-Falcon. Then Raven shot also but they did not kill him. "Run!" yelled Prairie-Falcon. "Here comes Wind!" So they fled with Wind and Serpent in pursuit. "Don't cry!" said Prairie-Falcon to Raven. "Quick! Hurry! We are getting there! Now we are there! Don't forget your magic! Here comes the snake! Hit him. Draw your knife and cut the snake! That's the way!"

THE MURDERERS ³²

tatewa'mil	k'tumlo'	macila'k'	tumle-mó'	me't'ya	
Star	fell already,	morning star	from above.	When came	
mk'we'L	kī'yax	peck'a'n	k'ci't'lip	naṭ'au'waṭ'	
to earth	came	the hawk.	Dead	this people.	
k't'o-'ke-lax	a'meṭ'auwaṭ'	nadio's	peta'ko	naṭ'au'waṭ'	
Revived	then people.	This God	made	this people.	
t'ol	texa''	ka'ciL	xu'i	k'satap'ni'	ska'k'
One	rock	named	Xui	had guardian	crow.
p'Li'xo	naṭ'au'waṭ'	ṭila'm	eo-talai''	t'ol	tiexe'wu
Threw them	this people	to eat.	Limestone	one	his foot
k'a'k'a					
sang.					

In the beginning the morning star fell from heaven. When it reached earth then came Prairie-Falcon and found the people dead. Then he revived the people. But it was God who made people.

There was a rock named Xui who had Crow as guardian. He used to kill people by throwing them over his head so that they might be eaten. And another murderer was a one-footed character of limestone who always sang a song before he killed people.

³² Told by José Cruz, revised by Pedro Encinales, 1910. Cf. *Ethnology*, p. 192; present paper, pp. 92, 110.

THE RAINMAKER³³

eko' etelua'' klicxa-i't'ie peta'-ko le'exai
Was old man rain-maker. Made it rain

me'pa'-lxo a'mti'' pa'tel kospolo'x pestelua'' empeta'-ko
when wished. Then said Padre, "Seize the old man to make

leexai - taa' tokoleexa-ita sekot'ak' takoxwete-lek
rain now! If not rains now tie him, and punish him.

tikotep'eL tite'a'' ta'koxwete-lek k'ts'ep' take'metunka-as
If not fill of water, to punish him." "Is good, I try

a'a-mko amk'ak'a tamtump' pai' tumle'm
if can." Then sang, then came cloud in sky.

a-mt'uk' pet'e'lo-wa' a'mtuxwen tune' belicxai
Then thundered the thunder. Then came then the rain

k'atapxex-e' belicxai kera ko'luwa' tamtep'ena-t'eL
hard. The rain no not late. Then filled them

bepalc'ten t'ma'xo bepa'teL kma-la'k' pestelua''
the barrels that placed the Padre. Told the old man

em'pete'e-ko pali'exai k'la-uwi' tamte' toku'ka-luxtén
to stop it that rain. Left it. Then said that not wish again,

ke'ra' k'o'lop'lo'va'
no enough already!

Long ago there was an old shaman who had a reputation as a rain-maker who could make rain whenever he wished. One year there was a long drought and the Padre of the Mission said, "We will test his powers." He gave orders that the old man should be caught and brought before him. Then he said to him, "If you do not make it rain so that it will fill these barrels I will have you tied and whipped." "It is good," replied the shaman, "I will try." Then he sang. Soon the sky became overcast with clouds and it thundered. Then came the rain furiously; it did not delay long. The barrels which the Padre had placed were filled quickly. Then he told the man to stop the rain. And it stopped. "We do not wish any more," he said. "No, there is enough already!"

THE MOUNTAIN LION HUNT³⁴

ke'se'lkotene hak' peta'ka ka'mpo ta'maiyaL
Fence-making we, made camp. Then went,

me'exai petcamna'xo hak' t'ot at' ta'mat'uina-pik
morning. Felled it we one oak. Then sawed it up.

³³ Told by Pedro Encinales, 1916. (Cf. Ethnology, p. 195.)³⁴ Told by Pedro Encinales, 1910.

pŭ'u'kot' ná· hak' ba'a't' a'maxt'e-lix *po'lpola*
 Bored we that oak. Then inserted powder,

a'maŭ'oka' a'mŭ'axatenap ʔamataksta'nte ʔa'maeo'me
 then lighted, then split. Then made posts. Then shouted.

ʔa'mexapik peta'ko hak' k'eo'lu'k'tene ta'maŭ'ek
 Then dug; made we holes. Then inserted

pest'a'nte ʔa'mamaŭ'ux ʔa'maxtektumé ba.ala'mbre
 the posts. Then tamped. Then fastened next the wire.

amko'molop' hak' ʔup'ta'talxwa-lnai' ʔa'maiya-l
 Then quit we from the our work. Then went

tumta't'ka'mpo ʔa'makaxau ʔa'mecxai' a'matak
 to our camp, then slept. Then dawned, then made

ʔa'lemxat ʔa'ma'amxaltumé ko'molop' hak' ʔala'mxat.
 our food. Then ate next, finished we to eat.

a'met'ya pe'a's tumak't'u'ne pts'e'ko tax pete'etco
 Then went the son to hill, observed it and the his dog

sai'yu k'a'se ko'f'konax in ʔumake'u besai'u
 eagle nesting. Not arrived yet to where the eagle.

ʔa'miyemá' peta'mul xo't'up' ka-s tupek'e'i-kaŭ'i'
 Than saw the puma. Passed only on the slope.

a'mpama-t'ko peti'iteo ampeo'la-t'ko ʔet'ol at'
 Then chased him the his dog. Then treed him up one oak.

kyo'xun pete'etco a'mŭ'yax pa'a's pts'e'eko
 Barked the his dog. Then came that son, sought him.

ʔa'mp'ya'mo ʔa'mul ʔa'mp'amesak ʔa'me-ya te-ts'e'k'
 Then saw him puma. Then called me. Then went to see;

ke'konax in ʔa'mulox peta'mul k'na'ye' a'pama-t'ko
 not I arrived yet. Then sprang the puma. Ran. Then chased him

te'etco pama-t'ko ʔumta'ke ʔa'kata ʔampuwe-nŭ'xo
 the his dog. Chased him to within woods. Then returned.

ta'mp'cola-at'koten mē-yo' baa't' ta'mamesik ba'a's
 Then treed him again same that oak. Then called him the son.

ke'ra ko'xo-ye' ampake'no hek' tetipt'e'nlo
 No, not answered. Then thought I that wounded already

tupeŭa'mul ʔa'met'iyinek ʔameka'eak'mek' ʔa'mulo-xten
 by the puma. Then shot him. Then missed him. Then sprang again.

a'met'ya kī· a'mŭ'yak pexu'te pama-t'ko
 Then went, went. Then went the dog. Chased him.

kok'te'a'p'lo pexo'te tax peta'mul ko'met'ik'ló
 Was tired already the dog and the puma. Not ran already.

tax pexo'te peta'mul p'k'e'poŭ'a'u t'yax pexo'te
 And the dog the puma followed him. Went the dog.

peṭa'muL ta'mpeola't'kotén mē-yo'' bea't' bekeyueo'teol
The puma then treed again same the oak the where climbed.

ṭa'mamesiktén ba'a's ṭa'mxo-yi' ṭa'mṭuxwen ṭa'menek'
Then called him again the son. Then replied, then came. Then said,

met'eyine'k ṭa'mt'ye' ke'ra' skī'tana naha'k'
"Shoot him!" Then went. No, small this rifle.

ko't'uxapṭa' baṭa'muL met'eyine'k' mo' ṭa'met'eyinek
Not dead that puma. "Shoot him, thou!" Then shot him,

ṭa'mtom tume' pa'mkohak' tumé ṭa'mama-
then fell then. Killed him we then. Then carried

tumta'm ṭa'malan sana-'to ṭa'mayopik' tumé
to house. Then removed his hide. Then staked it then.

ṭa'mamaa ṭ'umholq'n p'xanse'ko hak' berē'dmond.
Then carried to Jolon, sold it we the Redmond.

We were making fence-posts and made a camp. One morning we went and felled an oak tree. We sawed it into lengths and bored holes in it. Then we put powder in the holes and set it off. It split and then we made posts of it. Then we dug holes in the ground and put the posts in. We tamped the posts and fastened the wire on them. Then we left the work and went to our camp to sleep.

The next day we made breakfast and ate it. When we had finished my son went up on the hill with his dog to see an eagle which was nesting there. Before they arrived where the eagle was they saw the mountain-lion passing by on the slope. The dog chased him and treed him in an oak. The dog barked so that my son came after him. Then he saw the mountain-lion and called to me. I also went to see but before I arrived there the lion jumped and ran with the dog after him. He chased him into the woods and back again and treed him again in the same oak. Then I called to my son but he did not answer and I thought he had been wounded by the lion. Then I shot but missed him and he sprang again and again the dog chased him. The dog was tired but still followed the lion and treed him again in the same oak he had climbed before. Then I called to my son again and he answered and came. "Shoot him!" he cried and I did so, but my rifle was very small and I did not kill him. "You shoot him!" I cried and the boy shot him. Then he fell; we killed him. We carried him to the house and skinned him. We staked the hide and dried it and then we carried it to Jolon and sold it to Mr. Redmond.

A FOREST FIRE ³⁵

septic'mbre ʔa'mt'icko' ʔa'a'u' keteq' ko'mai'ye
 September, then was fire great. Began
rumeeme'ni' ʔa'mt'konax peta'ʔaa'mo p'neti'lt'ek
 in Reliz Cañon. Then came the our boss. Brought us,
he'uri dan baa's tax bet'o's ʔa'maiya-l kla'pai
 Henry Dunn, that son and the younger brother. Then went three
temuwa-na'' ʔa'makonlox tumtika'ko bela'k' ʔa'ts'e'k'
 of morning. Then arrived to its summit the ground to see
 peta'a'u' ke'ra ka'kaxau ʔa'kalambal ʔa ke'ra
 the fire. No, not slept and not ate and no
 ʔa'k'es k'eexai'yal hak' gas ʔupeco'k'a ku'wate
 blankets. Dawned we only in the gully. Bad!
 tax hesimo'n ka'stro lu'is sko'sya tax pe'a's
 And the Simon Castro, Luis Scocia and the son
 k'lo'xlano'ee' hak' ka'mxot'e raxo't'lop' tup'ʔate't'
 burnt almost. We not able to pass by the smoke.
 ʔa'mackol' k'e'lp'a hak' ka'kenilü' ralo'xla
 Then were, halted we. Thought already that burn.
 ke'ra ka'mxote ʔaxo't'lop' k'lu'walü sma'kai
 No, not able to pass. Long already night.
 ʔa'mxot'up' peta'a'u' ke'ra ka'lambal ʔa'maiyam
 Then passed the fire. No, not ate. Then saw
 ewa'x ski'ntai' ʔa'macaxt'e'lik' yolo' ʔa'lamixat'be
 fishes small. Then ate them, it already our food the
 ʔa-me'ta met'o'l ʔo'kena'tén' me'smakai' ʔa'm'alambal
 until on one day again. When night then ate;
 ko'nlox hak' tumta't'kamp'o ko'nel hak' tup'ʔa'a'u'
 arrived we to our camp. Escaped we from the fire.
 ts'ep tat'ca'kai adio's ʔa'a'u'
 Good our sleep. Good-bye, fire!

In September there was a great forest fire which began in Reliz Cañon. Our boss, Henry Dunn, came and got me, my son and my younger brother. We went at three o'clock in the morning and arrived at the ridge and saw the fire. We did not sleep and had nothing to eat and no blankets. When it dawned we were alone in the gully; it was very bad. Simon Castro, Luis Scocia and my son were almost burnt to death for we were unable to pass through the

³⁵ Told by Pedro Encinales, 1910; University of California Museum of Anthropology, phonograph record, 14-1583.

smoke. We were halted and thought that we would be burnt for we were unable to pass. After a long night the fire passed by. We had nothing to eat but at last saw some little fishes and ate them. That was all we had until the next day. At night we ate and returned to our homes, having escaped from the fire. And we had a good sleep. Good bye, fire!

A TRIP TO SAN FRANCISCO ³⁶

leva'x	tumte'ma	ko'maiyu	hek'	tumxolo'n
When came	to my house	left I	from Jolon.	

ta'maiyam	peta'meko	ake'a'sona	me'san	ta'maiyam
Then saw	the my friend.	What his name this?	Mason.	Then saw

me'san	peteau'waiik	me'konax	k'o'nxaló	ta'mp'yemet'ik
Mason.	Was met.	When arrived	late already.	Then saw me,

ma't'ik	tumte'mó	ko'nlox	hak'	tumta'm	p'ma't'ik
took me	to his house.	Arrived	we	to house.	Took me

maswida'	tats'ek	pets'enli'	p'ya'mhék'	xai'ya'
to city	to see	the amusements;	saw I	many

ta'uwut'	p'ma't'e'k	ta'mekonax	make'u	ts'enli'
people.	Took me.	Then arrived	to where	amusements

ketea'tén	le-ta'no	sma'kai	ta'maiya-L	tup'ta'm
great.	Half	night	then came	to the house.

ta'me'exai'	ta'metalxwaltenax	t'ol	to'kena'	sma'kai
Then morning	then worked	one	day.	Night

ta'tsaiyal	umsu'ida'	maa'tak	heyo''	ta'ts'aiyal
to go	to city.	Took me	he.	Went

me'exai'	tumta'm	k'ta'lxualtenax	hak'	t'ol
at morning	to house,	worked	we	one

to'kena	me'smakai	ta'tsaiyal	tats'e'k	ts'enli'
day.	At night	to go	to see	amusements.

me'exai'	ta'tsak'e'lp'a	tank'mai'ya	hek'	tunt'o'ltén	pu'e'blo
In morning	returned.	Then went	I	to one again	town,

o'kland	ko'keu	a'maiya-L	tumpa'	ta'tsak'e'lp'a
Oakland,	two	then went	there.	Then returned

me'smakai	tumta'm	kí'yalhá'k'	me'smakai	tats'e'k
at night	to house.	Went we	at night	to see

pets'enli'	kí'saliriya'm	stiyo'wanlax
the amusements.	All to see	beautiful!

When your messenger came to my house I started from Jolon. On arriving in San Francisco I met my friend—what's his name?—

³⁶ Told by Pedro Encinales, 1910; University of California Museum of Anthropology, phonograph record, 14-1582.

Mason; I met Mason. He met me. It was already late when I arrived. Then he took me to his house; we arrived there. Then he took me to the city to see the amusements; I saw many people. We came to where there were great amusements. At midnight we returned to the house. In the morning we worked all day and at night he took me to the city again. In the morning we went again to the house and worked all day. At night we went to see the amusements again and returned in the morning. The next day we two went to another town, Oakland and at night returned to the house. That night we went again to see the amusements and saw them all; they were beautiful.

IOY AND BLUEJAY ³⁷

yoi	tax	pat'o'so	skī'tana	pewi-tee'e'	kmāi'yal
Ioy	and	that her	younger brother	small	the bluejay lived
ṭumpa'	t'ol	smak'ai	kīya'xtel	pekei'tlip'	
there.	One	night	came	the dead.	
k'o'mat'ilī'ik	t'ol	se'wo't	yoi	pelits'e'	k'o'matiliik'
Was bought	one	their wife.	Ioy	the woman	purchased
t'eheyo't'	pexe'nes	ket'xai'ya'	tupekee'tlep'	eko''	
by them.	The beads	possessed	by the dead	were	
tenotili''	t'eheyo''	klu'waw ^o	le-l	nasma'kai	ṭumpa'
to give	for her.	Married	already	this night	there.
ṭa'mṭō'okenaṭune'	ṭa'mṭ'ya	heyo''	pewi-teile''	eko.	
Then day next	then went	she.	The bluejay	was	
ṭumpa'	me't'ol	lice''	ṭa'mṭ'e	kī-he'k'	tiite'a'u
there	for one	year.	Then said,	"Go I	to seek
pepe'	ketea'	pale'lko	t'oli'ya'	ṭupeṭika't'et	pa'lxo
the elder sister	large."	Asked	one every	of the trees.	Wished
t'p'ye'mo	ake't'eke'o	heyo''	peka'xap	kī.	
to know,	"What his place	he	the dead?"	Went	
ṭupi'kilentxo	pale'lko	t'olt'ya'	tupekea'xtene	ke'ta'	
to return.	Asked him	one every	of the birds.	No.	
ko'set'aik	heyo''	pale'lko	t'uxwe'nto	t'ol	texa''
not answered.	He	asked	finally	one	rock.
heyo''	pse'ko	heyo''	ma'hak'	peti'exa'	ṭa'maat'
He	told him	he,	"Give me	the money,	then carry
mo'	ṭumpa''	pxai'iko	ṭa'maat'	tumpa''	maatela'uo
thee	there!"	Paid him,	then carried	there,	carried him
pekei'tlip'	petexa''	tax	pewi-teile''	kyax'tel	ṭet'ol
the dead.	The rock	and	the bluejay	came	to one

³⁷ Translated by Pedro Encinales, 1910. Cf. Boas, *Chinook Texts*, p. 161; Kroeber, *The Yokuts Language*, present series, II, 275; *The Washo Language*, IV, 303.

ʔemai'ie ke'ta' ʔate't' ʔepeʔama'niL a'mt'ya'L
 village. No smoke from the houses. Then went
 peʔixapi'exo ʔa-m peketeʔ-ʔe'lo ʔa'm a-m heyo''
 the last house the large already house. Then he
 p'ya'ma ʔate't' ʔumpa' a-m heyo'' kī- ʔuma'
 saw smoke there. Then he went there.
 ʔa'mp'ya'mo peape'u keteʔ' a: pet'o's ski'tana
 Then saw her the his elder sister large. "Ah! the younger brother little!"
 heyo'' pse'eko heyo'' akēme'naxta umka'xap' mo'
 She told him he, "Whence thou comest now? Art dead thou?"
 heyo'' ksa ke'ra' ka'xap' petexa'' maat'ak
 He said, "No, not dead. The rock carried me
 ʔuwi' ʔite'o'ma ʔa'mpo'maiyeu ʔope'extlo t'olt'ya'
 here on back!" Then began to open one every
 ʔupeʔama'niL t'olt'ya' ʔupeʔa'm kap'xe'na-tel axa-ktén'
 of the houses. One every of the house was full bones!
 t'ol ʔa'ko ka'xap' t'olke'u ʔupeape'u keteʔ'
 One head dead near place of the his elder sister large.
 heyo'' pse'ko heyo'' tast'ma'lox ʔum.e'tak'
 He told her, "What thy desire to do
 naaxa'ten ʔena ʔ'axa'ko
 these bones of these heads?"

Ioy and her younger brother Bluejay lived together. One night the ghosts came to buy a wife and Ioy was the woman they purchased. They gave their beads for her. That night she was married there and the next day they took her away with them. Bluejay lived alone for a year and then he got lonely and said, "I will go and seek my elder sister." So he inquired of every one of the trees, wanting to know, "Where do people go when they die?" But they could not tell him. So he returned and asked every one of the birds. But they could not inform him either. At last he asked a rock which said to him, "Give me your money and I will carry you there." So Bluejay paid him all his money and the rock carried him to the country of the dead. The rock and Bluejay came to a village. But there was no smoke coming out of the houses. They went to the large house at the end of the village and there he saw smoke. So he went in and there was his elder sister. "Ah!" she said. "It is my little brother! How did you get here? Are you dead?" "No," he replied. "I am not dead. This rock carried me here on his back." Then he began to open every

one of the houses. And every one was full of bones! One skull was very close to his elder sister. So he said to her, "What do you want me to do with these bones and skulls?"

THE ELK ³⁸

k'Lu-walu	k'o'lap	<i>Juan</i>	ane'w ^o	tax	<i>pemaria</i>
Long ago	very	Juan	his grandmother	and	the Maria.

p'se'ko kī'ya-te' tet'ye' teta'mt'e ʔa.a'e kī'sile
Told him always to go to hunt the elk. Every

ʔoo'kana' kī ʔupa'mkneLko aete'n pʔ'i'kaxo kī'ya-te'
day went to kill them elk. Killed them always

Lk'a'neL pʔ'e'kaxo kī'ya-te' enmk'o'm' ʔ'a-xne'L
coyotes; killed them always squirrels. Some

me pʔ'e'kaxo sk'almo'k' pa'mko tet'ya'' tetamte
times killed mice! Could to go to hunt

kī'ya-te' kī-tén met'oltén ʔa'mticko' ʔupela'k' heyo''
always. Went again on one again. Then was on the land. He

k'a'mes yax ʔika'mpo aene'L k'a'ltena' hak'
cried, "Come to field, Elk! Fight we,

k'pa'La hak' peta'ʔake kīya'x ʔumtee'x eko' t'ol
dance we!" The something came to outside. Was one

map' nahwa' yo' pse'ko pemap' heyo'' ke'ta'
rabbit! This man he told the rabbit he, "No!

k'e'tak'a pe't'mi'ek'olet kī-e kutca'L pe't'aa'ko
Not I called thee! The thy ears resemble spoons, the its handle

k'wa'keLta pema'p' xa'ta a'mt'ya ʔump'a'wu
long!" The rabbit wept. Then went to other side

ʔa'kata xa'ta pema'p' ʔa'mamesten kīyaxte'L
woods. Wept the rabbit. Then cried again. "Come

ʔuwiteén ʔupaka'mpo o aete'n
to here outside, to that field, O Elk!"

Long, long ago Juan lived with his grandmother Maria. She always told him to go and hunt elk. Every day he went out to kill elk, but he always killed only coyotes and squirrels. Sometimes he killed mice. But nevertheless he always went out to hunt. One day he went again to the hunting country and cried, "Come on out into the open, Elk! We will fight and dance!" Then something came out of the woods: it was a rabbit! Then the man said to the rabbit, "I didn't call you! Your ears are like spoons with long handles!" Then the rabbit wept

³⁸ Translated by Pedro Encinales, 1910.

and went into the woods again. But Juan remained and cried again, "Come on out into the open, O Elk!"

THE FIGHT ³⁹

t'ol k'weL t'i-y^{6'} t'e'a'mt'e tetaa'' amp'ya'm
One time went to hunt of deer. Then saw
hek' t'ol t'aa'' kas ko'p'yeme't'ak pa-ke'n hek'
I one deer. Only not saw me. Think I
tuko'p'mesowaiik me'nak'o petsa-kai'' sexo-mo'' pet'eyine'k
that not was smelled because the wind was bad. Shot him
hek' t'aa'' t'up'xa'k' pet'eyine'k hek' umt'xiwai'yo
I deer with the bow. Shot him I in his heart.
anki' hek' tuma' ta'-mo-maiyi' to'o't'itina'-pik
Then went I there. Then began to cut him up.
pesno'xo hek' ksa'teL tuma' t'iek'ema'L peksa'teL
Heard I speaking there. Tulareños the speakers.
kya'manelak' heyo't' a'memet'ik' tumak'e'nax t'upe
Not saw me they. Then ran to where came to the
a'teloi ka'etakonax make'u pa'a'teloi ampse'ko hek'
friend. When arrived to him that friend then told him I
heyo'' a'teloi pa-ke'n hek' tet'i t'iek'emaL
him, "Friend, think I to be Tulareños
pekyax't'eL t'ihak' pt'a'kixo hak' heyo't' tam
the comers to us! Kill them we them!" Then
pa'a'teloi pse'hak heyo'' 'aⁿ pt'a'kixo hak'
that friend told me he, "Yes! Kill them we!
k'tee-henmilak hak' heyo't' se xai'ya t'an hak'
Are brave we! They are many and we
se ko'ken kas kasko't'ama' ta-pt'a'k'taiax kaske'ra'
are two only. But not able to kill us! Only no,
ko'tee-henmilak pa-ke'nohe'k' t'ehayo't' ksa'ktox
not are brave! Think I that they afraid
ma'yomalt'ai'ik' pe.a'teloi pse'hak heyo'' tam hak'
when are seen!" The friend told me he. Then we
ka'eil t'oo'ke k'a't' tam petxa'n hek' pet'iee'ko
seated into brush. Then had I the his knife
pa'a'teloi ma'kit'ohék' ta-ene'L t'upete't'eyitina' t'ol
that friend, gave him I some of the arrows. One
t'iek'e'm kya'x t'umt'ewa'ko pek'a' a'mpet'eyimeko
Tulareño came to beside the us. Then shot him

³⁹ Translated by Pedro Encinales, 1910; Cf. Kroeber, *The Washo Language*, present series, IV, 302.

hak' heyo' ta'met'eyinek eke'nto t'ampa'a'teloi
we him. Then shot him his eye. Then that friend

pet'eyine'ko pet'i'peno t'a'nkiteamnox ka'xap' a'memet'ik'
shot him the his belly. Then fell dead. Then ran

unke'o heyo' polt'e'ko hek' tup't'i'eik pet'a'ko
to where he. Cut it I with the knife the his head.

ta'mtyaxte'L pet'i'ekema'L t'oma t'a'momai'ye' tak'a'ltena'
Then came the Tulareños there. Then began to fight!

pet'eyitinek' hak' a'met'eyinek' t'ol t'ehoyo't'
Shot them we. Then shot one of them.

ta'mame'sik heyo't' yaxte'L ke'ra' ka'suxtax mom
Then cried them, "Come! No, not afraid you!

mo-m k'o'k'a-mko tuko't'eyine-t'ax t'npe t'ko't'iyinai
You not able to shoot us with the your arrows!

pet'eyine't'kam hak' ka'xatep mo'mta' pse't'ko
Shoot you we! Dead you soon!" Told them

hek' tel.i'n k'ts'a'ktox tupesk'a'mo k'ts'a'ktoxak'
I while yet were afraid to the near. Feared me

pa'mko keti' hak' ko'kenlo t'ehoyo't' t'ol
killed because we two already of them. One

t'ehoyo't' pet'eyine'ko ksa' pe'a'teloi k'ma'ltox
of them shot him very the friend. Jumped

hak' k'o'k'ot'na'pelt'e hak' ta'mit'yax petet'o'iyin
we, dodged we. Then came the arrows

t'et'ewai'yu ki'sile pa'a'teloi pt'e'kaxo hak' t'ol
to his side all that friend. Killed we one

tieke'm t'ya' t'ihak' ta'mamet'lik mask'a'mken
Tulareño each of us. Then ran to near him.

ta'm.met'lik tumatee'n k'e'po-t'ilau hak' heyo't'
Then ran to distance. Followed them we them.

ko'xom'tela' kasp'a'mko hak' k'i'ea' t'ehoyo't' xai'ya'
Escaped they but killed we four of them. Many

heyo't' pake'no hek' tet'o'e ta-ma' ta'mault'ek'
they. Think I that ten men. Then cut

ki'sile' petaxa'ko peki'ea' tamq'n' ka'xatep' pa'a'teloi
all the their heads the four men dead. That friend

k'e'nai' me'no ta'm'oma-iyi' tai'ya'l tumta'm
wounded his hand. Then began to go to house.

ta'maiya-l t'umat'a't'e-ma t'a'pa'tla
Then came to our houses, and danced.

Once I went out to hunt deer. I saw one and he didn't see me. I think he didn't smell me because the wind was blowing the other way. So I shot him with my bow and arrow. I got him in the heart. Then I went up to him and began to cut him up. But while I was busy there I heard somebody speak. It was a party of Tulareños who were speaking. But they didn't see me. So I ran back to where I had left my friend and said to him, "Friend, I think that there are some Tulareños coming up to us. Let's kill them!" And my friend replied, "Yes, we can kill them all right! We are brave men. They are many and we are only two but just the same they won't be able to kill us! They aren't brave; I think they'll be afraid when they see us." That's what my friend said to me.

So we went into the brush. I took my friend's knife and I gave him some of my arrows. Then one of the Tulareños came near us and we shot him. I shot him in the eye and my friend hit him in the belly. He fell dead and I ran up to him and cut his head off with my knife. Then the other Tulareños came up and we began to fight. We shot at them and hit one of them. Then I yelled out, "Come on! We aren't afraid of you; you can't shoot us with your arrows! We'll shoot you; you'll all be dead pretty soon." That was what I said to them while they were afraid to come close. They were afraid because we had killed two of them already. One of them kept shooting at my friend. But we jumped and dodged and all the arrows passed by on the side. Then each of us killed another Tulareño and ran up to them. Then they fled to a distance and we followed them. The rest of them escaped but we killed four of them. They were very many; I think there were ten men.

Then we cut off the heads of the four slain men and then started out for our house. My friend was wounded in the hand. And when we came to the house we had a great celebration and dance.

DIALECT OF SAN MIGUEL THE BEGINNING OF THE WORLD ⁴⁰

letetaha'pu	wela-k'	ʔ'a'miya _x -olap'e''	ta'mico-L	
When made was	the earth	then came the sea.	Then rose	
toʔ'op'o'iya	xolap'e''	ke'kaxosna'it'o'	ʔ'up'o'iya	kete'a''
to the mountain	the sea.	Was the eagle then	mountain	great.

⁴⁰ Told by Maria Ocarpia, 1916. Said to be version of San Antonio. Cf. Ethnology, 190; present paper, pp. 81, 83.

ʔa'meyexote'ene'' ʔa'meyaxhoʔa'mul ʔa'met'e't hosna'i'
 Then came the old woman. Then came the puma; then said the eagle,
 umta'net'me'cax patálok'ō' hop'a'ta'L tamet'e't
 "Wilt thou give thy whiskers? Lasso it I the basket." Then said
 ʔot'a-xwe'n' xosna'i' ne'xō' ʔa'mepetak ʔuhela'k'
 to the dove the eagle, "Fetch earth!" Then made of the earth
 hosna'i' ʔa'mepetakto lene'' ʔoteta'p'kol la'pai
 the eagle. Then made did woman of elder, three
 a'metetaXap holene'' a'mepuxumk'uwa'p' ʔa'mete't
 then made the woman. Then entered in sweat house. Then said
 hock'a'n' ni'hoti'te'elak yik'e' we'amas ki' ma'a'c
 the hawk, "Fetch the *barsalillo*! Go!" The coyote went bring
 hote'e'lak kera'' kn''wluwn'tite'elak ʔa'mekik'e't'u'
 the *barsalillo*, "No! Not is my *barsalillo*!" Then went did,
 keno'lk'e'to' ʔamepetako lama'ta komoleple'' hoʔ'epo't'
 sweated did. Then made bower, finished the people
 ʔotenake't'o' ʔa'metetai p'e'nap'e'
 made did. Then made fiesta.

The old Woman of the Sea was jealous of Eagle and wished to be more powerful than he. So she came towards him with her basket in which she carried the sea. Continually she poured the water out of the basket until it covered all the land. It rose nearly to the top of Santa Lucia Peak where were gathered Eagle and the other animals. Then Eagle said to Puma, "Lend me your whiskers to lasso the basket." He made a lariat out of the whiskers of Puma and lassoed the basket. Then the sea ceased rising and the old woman died.

Then said Eagle to Dove, "Fetch some earth!" Then Eagle made the world of the mud brought by the dove. Then he took three sticks of elder and formed from these a woman and two men. But still they had no life. They all entered the sweat-house. Then said Prairie-Falcon, "Fetch my *barsalillo*! Coyote went to bring it but brought a load of different wood. "No!" said Prairie-Falcon. "That is not my *barsalillo*," and Coyote had to go again. Then they all sweated. After sweating the eagle blew on the elder-wood people and they lived. Then they made a bower of branches and held a great fiesta.

THE THEFT OF FIRE ⁴¹

sa'nenexoe-k'a'n ho'toxwa't'o' hock'a'n wa'hual' ʔa'so'
 Married the hawk, the mother-in-law his the hawk bullbat, her name.
 te'ine'' p'a'lxo' ʔepokot'hoʔo' hoʔ'e'le'm' ʔa'miye
 Old woman wished to kill him did the son-in-law. Then went

⁴¹ Told by Maria Ocarpia, 1916. Cf. p. 82.

hock'a'n peta'ko' hoť'iope'' he'k'a' toťoxwa'to'
 the hawk made her the grubs. Said to his mother-in-law.
 ta'miye hock'a'n hoseno'u' kī' ne'ŋ' ho.e'xo'
 Then went the hawk the his wife, "Go bring the her mother."
 kiť'o' p'i'exo't ti'ope'' ta'melioxai ta'miyex hote'ene''
 Went did, ate they grubs. Then rained, then came the old woman
 ta'xo p'aso umte-mo'' ta'metēkamkua'pī hosna'i'
 and the her child to her house. Then were in sweat-house the eagle
 ta'xohelk'a' tamēcmak'ai'ť'o' umkwa'p¹ li'exait'o'
 and the coyote. Then darkened did in sweat-house. Rained did
 kite'q' ta'mexwenť'o' te'ine'' ake'laxa mak'e'wel
 great. Then came did old woman. "Where door?" "To north."
 ake'laxa map'xa'nol laxa'm ta'met'e't hote'ene''
 "Where door?" "To south door." Then said the old woman,
 hi'k'a'no'' kīk'e'' neŋ'ke' lap'e'' tamet'ikať'o'
 "Swear now, go I, bring I sea!" Then was then
 le'exai ke'rako'p'eexai ta'metetaka weťelo'' yik'e''
 rain; no, not dawned. Then told martin, "Go
 umle'm o'ť'ika hote'anone'' me'n' ta'menact'o'
 aloft if is the light." Went, then returned did,
 ta'metet ha' keka' te'anone' no'' he'ka' hosna'i'
 then said, "Yes, is light." "Good!" said the eagle.
 yike'wesna'k ni' ř'a'a'u' wesnak ta'metiko'nox
 "Go the kangaroo-rat, bring fire the kangaroo-rat." Then arrived
 hosna'k eme'Ł toť'a'a'u' ta'mecap hoť'uma'u'
 the kangaroo-rat, beaten of the fire. Then extinguished the cargo.
 ta'mexwenosna'kto' ta'metet yik'e'to' xo'mi kī'to'
 Then arrived the kangaroo-rat did. Then told, "Go roadrunner!" Went did
 oxo'mi pa'xo ř'a'a'u' ř'nema'i' a'mexwenťo'
 the roadrunner. Put it fire in cheeks. Then arrived did,
 ta'meteta'k kera'' ko'xwen k'u'tex řulama'u''
 then said, "No, not arrived." Remained with food.
 ta'metetak howe-ťelo'' yiki'umle'm ta'met'okono'xo'
 Then told the martin, "Go aloft!" Then arrived
 hosa'xe kī ne'ŋ' ř'a'a'u' ř'a'miyex hote'anone''
 the bird, went brought fire. Then came the light.
 hosa'xe ma'aumi'ee'lko' ř'a'a'u' p'eexa'ito' xa'ta
 The bird carried in his beak fire. Dawned did; wept
 hoť'a'mul ř'a'mete'ťosua'i' mi'yo'k ř'unxa'ta yī'ke''
 the puma. Then said the eagle, "Why thy weeping? Go
 te'a'u řaa'p¹ akiti'' p'oxe'm' ontipo'ť'tecko''
 hunt deer!" "How make sinew?" "Thou not human art!"

ma-mo'e	hot'me'ma't	tamexa'ta	hofo-xo'tu'	komxa'ta	
Preserve	the thy meat."	Then wept	the wolf did.	"Don't weep!	
yike'	te'a'u'	humni'	aketí'	puxe'm'	ontipo't'
Go	hunt	the antelope!"	"How make	sinew?"	"Thou not human
ti'eko	mi'eax	timi't'ik	mixa'tafo'	xo-pene'l	
art!	Eat	running!"	And wept did	the vulture.	
te'a'uhopa'met	aketihopoxe'm'	mi'eaxka	ta'meteto		
"Seek the carrion!"	"How make the sinew?"	"Eat only!"	Them told did		
'elk'a	yike'	aketihopoxe'm'	mepe'noxka		
coyote,	"Go!"	"How make the sinew?"	"Gulp only!"		

Long ago when all the animals were people Prairie-Faleon was married and his mother-in-law was Bullbat. She wished to kill her son-in-law. Prairie-Faleon went out to make her some grubs to eat, as the animals in this time could make whatever they wanted. Then he said to his wife, "The grubs are ready; bring your mother." So they went and ate grubs. Then it began to rain and the old woman and her daughter returned to the house.

Eagle and Coyote were in the sweat-house when it became dark and rained hard; the old woman couldn't find the door in the darkness.^{41a} "Where is the door?" she asked. "To the north!" But she could not find it. "Where is the door?" she demanded again. "To the south!" Then the old woman became furiously angry and said, "I swear I will go and bring the sea!" And she went away.

Many days passed and it did not dawn but rained continually. Then said Eagle to Martin, "Fly up to see if there is any light." Martin flew high in the sky and finally returned and said, "Yes, there is light." "Good!" said Eagle. "Go, Kangaroo-rat and bring it!" Kangaroo-rat went and stole some fire from those who were guarding it. They fought with him but he wrapped the fire around him with a white bandage. On this account he still has a white band around his body. But the fire went out during the long journey and Kangaroo-rat arrived fruitless. Then said Eagle, "Go thou, Roadrunner!" Roadrunner went and secured the fire and put it in his cheeks. But he liked it so much he remained there eating fire. On this account he has red cheeks. Then they said, after waiting, "He did not arrive there." So they said to Martin, "Go up thou!" Martin went and brought fire in his beak. Then there was light and it dawned.

Then Puma wept because he was hungry and cold; he was the king of the animals. But Eagle said, "Why dost thou weep? Go

^{41a} Cf. E. W. Gifford, "Miwok Myths," this series, XII, 290.

hunt deer! Thou shalt not be human!" "But how shall I treat them?" inquired Puma. "Guard everything thou catchest!" And Wolf also wept. "Don't weep!" said Eagle. "Go hunt antelopes!" "How shall I treat them?" "Eat them running! Thou art not human!" And Vulture also wept. "Seek carrion!" commanded Eagle. "How shall I treat it?" "Merely eat it!" And Coyote wept also. "Go!" "How shall I treat my food?" "Just gulp it down!"

THE TAR-WOMAN ⁴²

ʔa'miye	hock'a'n	fa'lo'	hola'p'	ya'mo'
Then went	the hawk.	Accompanied	the raven.	Saw her
hote'a'hé	ʔa'metet	hock'a'n	umpet'xa'u	oʔolole'
the Chahe.	Then said	the hawk,	"Hast thou got	the flute?"
ʔa'ltom'	ʔi'mi'txa	ʔaltunt'ica'xal	ʔe'msaxten	xa'wela'k'
What thine,	thy possession!	What thy power?"	"Nephews,	far the land;
ma'xap	umti'te'o'm	ʔa'menʔotohoʔolole'	ʔa'metaxap	
get up	on shoulder."	Then seized did the flute;	then got up	
umti'te'o'm	ka'xap	ʔa'metet	wáyawaye'	xe'sekola'
on shoulder.	Got up.	Then said,	"Wayawaye!	Hesekola!
kēwōts'its'tená	ʔewi'le'tek	ʔa'me.axa'ta	hoʔ'olole'	
Cries this	which kill I!"	Then got up on	the flute;	
ʔa'metom'	hola'p'i	ʔa'mecauwat	ʔa'menʔo'ck'an	
then fell	the raven;	then black.	Then seized did the hawk	
hoʔaca'x	ʔa'memoloxote'ene'	hote'axe'	lexala'	ʔaxle
the feather.	Then jumped the old woman,	the Chahe.	"Grandfather!"	And
ti'ʔolpet	po'xtela'k'	hote'axe'	k'o'lpex	ho'lk'e'
scalded.	Entered in earth	the Chahe.	Came out,	"Burnt I!"
k'o'lpext'ma'	hoʔ'i-ko''u	pisi'lxo'	wela'k'	k'o'lpex
Sprouted mesal	everywhere	whole	the earth.	Sprouted
peyexte'to'	ka'xwen	ho-t'ma'	peke'lentxo	wela'k'
its seed;	many	the mesal.	Circled	the earth.
leeʔiko''	smak'	ʔumla'luo	ʔa'metika'	i'ma
South-west	tar	then left it.	Then is	mesal
we-k'e'wel	hute't'xapter	hote'ine'	huke'u'	mtana'
At north	ended	the old woman,	the place.	Now
kiʔe'mna	sikililip	maka''	ʔo'cko'n'e	he'u'
sounds	encircle;	now	implanted	she
te-ʔa'xapter	ki'silip	ʔo'ʔoxoyota'i'	ʔan'me	taXa'ptep
to finish	all	life	until	ends

⁴² Told by Maria Ocarpia, 1916. Cf. *Ethnology*, p. 194; present paper, p. 84.

umk'wa'l	tet'a'nkox	okete'a'	ot'a't'a'	ote'ene'
world.	Planted	the great	the fruit.	The old woman
he'u'	le'uxo'	k'e'wel	ke'u'	hu'tet'axaptep
she	is	north,	there,	Ended

hapok'e'lee
the story.

In former times there was an old woman known as Chahe. Her stomach was a basket full of boiling tar which she carried on her shoulder. She would inveigle people to approach her and then throw them into the boiling tar where they were digested. One day she was seated on a hill waiting for someone to pass by. Then there came Prairie-Falcon accompanied by his uncle Raven. They saw Chahe and Prairie-Falcon said, "Have you got your flute?" "Yes," said Raven. "What charms have you?" For both of the friends possessed magic flutes which aided them in everything they undertook.

When Chahe saw them she said, ingratiatingly, "Nephews, you have a long journey to go. Better get up on my shoulder and let me carry you." So they flew up on their flutes and sat on her shoulder; she was very tall. Then she sang:

Wayawaye! Hesekola!

It is crying, that which I am going to kill!

Then they stood up on their flutes but Raven missed his balance and fell into the basket of tar. That is the reason he is so black; before this Raven was as beautiful as Prairie-Falcon. But the latter reached down and caught Raven by one feather and hauled him out and revived him. Then they pulled out their fire drills and set fire to the tar. Chahe jumped as the fire touched her and cried out, "Oh, grandfather!" Her skin began to peel off and she ran about furiously. She ran into the earth in her endeavor to extinguish the fire, and then came out again. "I am burning up!" she cried. All over the earth she ran leaving drops of burning tar, and every place where the tar fell there sprouted the mescal. Much tar fell to the southwest and there is a great mescal. Her course finally ended in the north where she still is heard running in circles. And so she will continue all her life to the end of the world, dropping seeds of mescal. There is still the old woman in the north.

My story is ended.

PRAIRIE-FALCON AND ELF⁴³

ta'mi'yaX	um'take''	oteilwa'i'yi	ʔeci'k'	ka'ro'	
Then came	in road	the old man	barn owl.	?	
kam'ti'	he'k'a	maka''	ta'mi'yaX	hoek'an	k'e'sko'
Hunted,	said	?	Then came	the hawk	spying.
ʔamik'a'ka	teilwa'i	he'k'a	maka''	k'a'ka	ʔotewo'ts'o'
Then sang	old man,	said	?	Sang,	“With feather
kake'L'	ʔiexe'po'	hosk'a'mAa'n'	WI	WI	WI
hangs	his foot	the elf!	Whee!	Whee!	Whee!"
a'met'ica'to	ta'metika	howeteele''	hik'a	te'k'a	
Then walked did.	Then was	the bunting	said,	“Who is	
mi'slipap	ta'meyax	ki'	hoskama'a'n'	ko'mop	exa'p
smells himself?"	Then came	went	the elf,	made himself	rock.
ta'met'etepai	ha'lap	ta'a'u'	keeme'L	ta'met'xauwat	
Then said,	“Throw	fire.”	Threw.	Then became	yellow
ho't'ieu''	ʔamexa'ta'	umk'wa'p	a'mtepel	ka'pel	
the his breast	Then wept	in sweat-house.	Then filled,	filled	
ho'tica'to'	a'metikonox	um'titi'lk'o	'otoca'to	hock'a'n	
the his tears.	Then arrived	to his head	the his tears	the hawk.	
a'miyix	ki'to'	ta'meto'yokap'to'	a'miyi	ki'to'	
Then came	went did.	Then revived did.	Then went,	went did.	
me'topokap'to'	ta'meyi	hosk'a'n	keuke'	xilap'to'	
When revived did	then went	the hawk	where	braves did.	
ta'neka'to'	hoteine''	pasie'M	XUI	ka'natapato''	
Then was there	the old woman	named	Xui.	Was pounding	
pe'L'i	ke'ra'	euke'nt'o	ta'meye	kixola'p'to'	loko'xo'
pil.	No	her eyes.	Then went,	went the raven did,	snatched it,
pamo''	hope'L	a'miyax'ton	ʔamiki'yahock'an	ko'tisen	
ate it	the pil.	Then came again	then came the hawk,	“Be careful!"	
he'e''	yu'wan	nape'L'	a'mipacai'yo	pane'	ʔamipopa'uto'
“Yes.	Sweet	this pil!"	Then raised it	pestle.	Then seized it did.
me'ten	p'o'ei'to'	hop'a'NE	ta'mipopa'uto'	hola'p'	
When again	raised did	the pestle,	then seized it did	the raven.	
ʔa'metet	omya'mEEP	ta'miyehock'a'n	papo'xo	me'neno'	
Then said,	“Dost see?"	Then went the hawk,	put in	his hand.	
ʔa'mepopa-uto'	ho'tits'a'lto'	ta'mexotko'	ta'mela'p'seto'		
Then seized did	the tip of his wing.	Then blew him,	then raven was there.		
a'miyi'to'	ki'to'	ya'ma	ocka'k'	p'a'mas	te'metet
Then went did,	went did,	saw	the crow.	Shouted,	then told,
he'k'a'	ki'yaxno''	ʔepot'ha'lap'	ho'tika'uwi	amet'o'xox	
said,	“Come soon	people!"	The sleepiness.	Then snored,	

⁴³ Told by Maria Ocarpia, 1916. Cf. *Ethnology*, p. 192; present paper, pp. 67, 92, 93.

ka'nwɪ	kɪ'ka	ueokonoi'	ʔa'keneo''	xu'tia	hoʔa'a'p
slept. Was	the great owl,	doctor was,	Sick	the deer	
kite'a'	ʔa'metɛt	me'nok'eko'	hota'ken	ʔa'met'et	
great.	Then said,	"Go to see I him	the doctor."	Then said	
hoekeno'i'	aki'teno'pa'mka	anaʔo'opoka	eme'tikas		
the great owl,	"Where he who kills thee?	Allow head	to see if can		
te-te'o'imo''					
suck will!''					

Old man Barn-Owl came along the road; he had been hunting with the aid of his magic feather with which he killed his game. Prairie-Falcon came after him, spying. Then the old man sang:

Because of my feather,
Elf hangs by his foot!
Whee! Whee! Whee!

For he had caught Elf and hung him up by one foot in his sweat-house so as to kill him. Then he went away.

Then Prairie-Falcon went to the sweat-house and wept; he wept so long that the house filled with his tears, they reached the head of Elf hanging there and revived him.

Elf was seated smelling his arms when Bunting came by and laughed and said, "Who is this who is smelling himself?" At that Elf went and turned himself into stone. Then Prairie-Falcon got angry and said, "I will throw fire at him!" He did so, and for that reason Bunting's breast is yellow to this day.

Then, after reviving Elf, Prairie-Falcon went to meet the other brave animals. There was an old woman named Hui who was pounding pil in a mortar. She had no eyes. Raven was there putting his foot in the mortar and stealing some pil. Prairie-Falcon came along and said, "Take care!" "Yes," replied Raven, "but this pil is very sweet!" Whenever she raised the pestle Raven would seize a handful of pil. "Do you not see?" he said. At last Raven was a moment slow and Hui pounded him in the mortar. Then Prairie-Falcon reached in his talons and caught him by the tip of the wing and pulled him out. He blew on him and Raven assumed his present shape.

Prairie-Falcon then went and encountered Crow who cried to him, "The Humans are coming now!" Prairie-Falcon caused him to sleep and snore.

Great-Owl was a medicine-man. The big Deer was sick and said, "I will go and see the doctor." Then said Great Owl, "Who is the man who is trying to kill you? Let me suck your head."

THE SERPENT⁴⁴

ke'ka' hotinele' p'i'exo' hoť'ipo't' petak'a'u
 Was the serpent. Ate him the Indian. Named him.
 pet'xa'u' hoť'uk'o'Yi huťema't'o' țela'mi ța'mepesno'xo'
 Had it the whirlwind that gave did to eat. Then heard him
 hock'an' ța'metet aket'a'ti he'k'a' hola'p' k'a'lau'
 the hawk. Then said, "How to do?" Said the raven, "How many
 țumte'a'hal pet'xa'nk'e' țike'ra' kopa'utek hock'o't
 thy powers?" "Have I that no not overtake me the snake.
 pet'xa'u k'e'u' țoťi'pe'N nq nak'e' ha'kie
 Have it where quick." "Good! This I two
 la'pai ț'opo'iyela ke'u' ț'ica'xal ake'ho' a-some'neka
 three mountains. There power." "Where the?" "Asomeneka
 hoko'u' aketo'nho' a'sumloiya'mi țanmo' ha'
 the place." "Where again the?" "Asumloyam. And thou?" "Yes.
 pa'xok'e' ței'te'ai' no' aketunk'e'u umle'sam
 Place I neck!" "Good! Where again place?" "At Morro,
 țomele'u' ț'ea'hal nq' poxk'e'to' ny'i me'no
 last power." "Good! Enter I did. Good is. Let's see
 nok'xa' hock'ot țik'a'mento' ki'yalto' eo'keneock'o't
 we the snake that we saw did." Went they did, awoke the snake.
 meen'ke-noek'ot'țu' ke'we-ts'na ța'met'uk' hots'ak'a'i
 When awoke the snake did shouted. Then broke the wind.
 yoť'me' wi't'nak ț'u'k' hots'aka'i ț'ak'ak'o'
 "Come now, nephew!" Broke the wind, felled.
 no' na'i' kať'me' ki'ya'x len' hock'o't
 "Good! Run! Let's go now!" Came then the snake.
 lem kera' lak' xaipa'ko' pa'mtakna' nq
 "Up!" "No! Down!" "Summon strength! Seize this! Good!"
 ki'ya'xle'u' kewe-ts'nale' hotinele' male'ntax t'me
 Came then, shouted the serpent. "Remember pray!"
 nq xaiya'l ka'xoť'lop t'me xa'tanok'e'
 "Good! Went passed then!" "Weep will I."
 ko'mxa-ta lale'x țumte'a'hal nq' he'la
 "Don't weep! Throw thy power! Good! Wait!
 loiyamka'ka' kepte'a'hal a' na'i' lem nq
 Mountain is there power!" "Yes! Run up! Good!
 male'nt'xo k'e' umle'sam nq' k'a na'i'
 Remember it I at Morro!" "Good!" said "Run!
 mel' kopte'eplo kewe'aea' xaipa'koa'ni pa'mtak
 ahead!" "Tired already, uncle!" "Summon strength please! Seize

⁴⁴ Told by Maria Ocarpin, 1916. Cf. Ethnology, p. 193; present paper, p. 92.

nonack'ot leM t'me'ke' ta'mi'to' kiyalumle'm
 will this snake! Up! Go!'' Then went did, went upwards,
 ko't'atnoxt'o' ta'metee'l'hock'at'to' ka-a'lo'to' k'e'l-o'
 went headlong did. Then preceded the snake did. Was already did. Enveloped
 hole'sam ta'metko'nox t'u'inox umt'ika'ko' hock'o't
 the Morro. Then arrived, settled on peak. The snake
 se'kelelep le'u' hock'o't ye'nt'xole'u' ta'metot'oinop
 enveloped then. The snake caught him then. Then jumped
 hock'a'n' ta'mepeta-no ho'itomu'i' ta'mepoko't'o'to'
 the hawk. Then seized the charm. Then killed him did;
 k'i'ea' t'a'kai' hock'o't he'u'wa'tikasmeko'i
 four pieces the snake. Therefore are rattlesnakes,
 taeni'l wa'tika' tet'xa'ptep le' tinele''
 others; therefore are. Died already serpent.
 hewnewa't'oxo' ho'tikaluo' ka'xwen ne'wo't
 Therefore poison the flesh. many got they
 co'watot ta'miyax helk'a' ne'uto'x co'wato
 poison. Then came coyote, got also poison.
 ta'mitika hosku'ntui' sniko'i umla'mka he''k'a'
 Then are the little rattlesnakes at shore Said
 hock'o't ku'xo'i'yo-tap' ki'yax ee'tep tatk'o'
 the snake, "Live always. Die I
 le'u' kasko'xo-yoita'p
 already, but they live.''

Once there was an animal which ate the Indians and was called
 Serpent. The whirlwind was his protector and brought him food.
 Prairie-Falcon heard of him and said, "What shall we do?" "How
 many powers have you?" asked Raven. "I have one so fast that the
 snake will not be able to catch me." "Good!" "In two or three
 different mountains, there are my powers." "Where?" asked Prairie-
 Falcon. "At Asomeneka." "And the other?" "At Asumloyam."
 (Both mountains are near to Cholam where the snake also lived.)
 "And you?" "Oh, I'll risk my neck anywhere!" "Good! Where
 is your power?" "At the Morro; that is the last power." "Good!
 I have been there; that's all right. Let's go and see the snake."

They went and the snake awoke, and when he awoke he cried out
 for the whirlwind. "Come along, nephew!" cried Prairie-Falcon.
 Along came the wind, felling everything in its path. "Good! Run!!
 Come on!!!" shouted Prairie-Falcon and they fled across country with
 the snake and the wind close behind them. "Fly up!" yelled one.

"No, down!" shouted the other. "Summon up your strength or he will catch us! Good!" Serpent came yelling. "Just remember your powers," entreated Prairie-Falcon. "Good! They have passed." "I am going to cry," said Raven. "No! Don't cry! Cast your spell! Good!" "Wait a moment; there in the mountains are my powers!" "Yes, fly up! Good! I remember mine at the Morro." "Good!" said the Raven. "Fly ahead; I am tired, uncle!" "Just summon all your strength or the snake will get us! Fly up! Go!" And they flew towards Morro with the snake in pursuit. They flew upwards, headlong, before the serpent. He wrapped himself around the Morro from beneath and the allies seated themselves on the top. He had almost caught them when up jumped Prairie-Falcon and seized his charm. With it he cut the snake into four pieces and killed him.

And from these four pieces were formed the snakes of today. On this account there are rattlesnakes and others; therefore their flesh is poison. Many snakes got their poison thus. Coyote also came and secured poison. There are many little rattlesnakes at the coast near Morro. The old snake said, "They shall live forever; I have died, but they will live."

THE ELF AND THE BEAR⁴⁵

ke'kaŋo	hoŋaa'pi	ho.e'xo'	hoskamaXa'n'
Was then	the deer,	the his mother	the elf.
ŋa'mexwen	hoŋ'axa'i'	umtante'a'ut'mike	he'ŋe' k'e'
Then came	the bear.	"Wilt permit hunt thy lice?"	"Yes," "I
etc'a'u'	no.	te'a'wo	k'e' mīyok ŋoku'micax
hunt;	now	hunt them	I," "Why dost not thou eat?"
ke'ra'	ke'reax	wa'kaŋ'ŋ'a'l	no' k'e-ts'a yī'x
"No,	not I eat	toads!"	"Good! I first!" "Come!
etc'a'u'	t' mī'ke'	a'mp'icxoŋu'	umla'k'aiyo a'meco-ka'
Catch	thy lice!"	Then bit her did	in her neck. Then ripped
ŋ'e'peno	ŋa'metik'a'topŋo'	hoskam ^a ha'n'	a'metiea-
her belly.	Then was there	the elf.	Then went
hoŋ'axai''	p'i'exo'	ŋa'meti'hoskam'a'n	ee'ta ŋiexe-po'
the bear,	ate her.	Then said the elf,	"Scabby his feet,
sko'nt'o'yi'	eoke'nt'o'	ŋ'u'moi-ne'	ŋits'e'p kake'ŋ'o'
little	his eyes	stubby	tail!" said did.
ŋok'ape-ea''wī	mopk'e'ŋ'o'	a'meya-kike-ŋu	kikeumke'nneno''
Within the hollow stone	grew did.	Then went did,	went to where grandmother,

⁴⁵ Told by Maria Oearpia, 1916. Cf. E. W. Gifford, "Miwok Myths," this series, XII, 286, 333.

osaya'pa' mop'ke'to' umke'unene' a'mek'ate'k
the rainbow. Grew did, there where grandmother. Then fight

ho't'eLxo' ta'mete't honene' ko'milyo-ta
the thunder. Then said the grandmother, "Do not select him now!

xa'i pena'ika kera'' ku'penaiyako ha' mono'
Bad! Wound thee!" "No! Not wound me! "Yes! Thou now!

kumt'me'na'iko kéexoneka' tipuxa'i ta'meta
Not thy wounding? Art weak only." "At dawn then test

ho't'ilxo' p'aina'sko k'e'' tepuxa'i ta'miyax
the thunder. Call him I! "At dawn then came

t'e'Lxo' oko'penaiyaxto' euka'iyelak kasko'penaiyak
thunder. "Not wounded me did; kicked me but not wounded me."

ka'eeL tamhe'u to'mel' wela'k' kera' k'e-lap'k'e'
Tested then to end of world. "No, wrap I

tusie't' te'ka'ten' sie't' nene'' ma'xtop'ai'
in feather, red feather, grandmother." "Put ashes

umti'kau' misxa'teL okepenaiyak ole'exai' no'
on body! Urinate!" "Not wound me the rain!" "Good!

ma'menip ki-le'exai a'metamenep ka'menep't'o'
Come out!" Went rain. Then came out, came out did.

kace'L t'i't'o' a'mekept'a a'mecitipt'o' kept'a'
Tried to do. Then was cold, then died did. Was cold.

tametetoanqu' ko'milio-ta nak'oleiyip ta'metan'to'
Then said the his grandmother, "Don't concern thyself these things!" Then
arose did,

te'miyi' ki't'o' te'a'wo' le' pokot'xo e'xo' iya'mo'
then went, went did. Sought him previously killed her his mother. Saw them

hakisme'teno' tamepokot'xo ho-sku'nt'ui' hotaxa'iyak'ten'
two his children. Then killed them the little ones, the bears,

papa'to' pani'k'o' ta'ntica hotaxai' xa'pko'
roasted them, gave him. Then wandered the bear, dug,

k'o-te'e'L taminap'Le' a'mexwen mi'caxua nata'pata
cacomites. Then cooked them. Then came. "Eat this, this which roasted."

a'mepicxoto' ta'metitowetele' tē'k'a' pi'exo'
Then ate did. Then said the bunting, "Who is eats him

pa'so' talt'ma'' kera'' na'te'ko'iyi kiek'sa'na
his son?" "What thy remark? No, this root resembles

tiexi'po' nap'a's le'ut'ie ta'mete't ake''
his foot the son." When went then said, "Where

tikia't'onosme'ten nap'no'na kote'e'L ts'axwen'
then went did the children? Cooked these cacomites! Dried

no'na	ṭameṭet	howe-teele''	kik'e'	pema't'ko
this!''	Then said	the bunting,	"Go I,	follow him
k'e'	poko't'xoke''	ṭia'pautee	kera'mas	kea'pa-u
I,	kill him I	if overtake him!	No more,	not I overtake him.
kerako't'a-te	me'tok'ó			
No, not has,	try I!''			

Once there was a doe, the mother of an elf. A bear came and said, "Let me louse you." "All right." "I will hunt for them." So the bear loused the doe but threw the lice away. "Why don't you eat them?" asked the doe. "I can't eat toads!" replied the bear. "Good!" said the doe. "Then I will." "Come and catch your lice," said the bear. He was angry at her and when she came bit her on the neck and killed her. Then he ripped open her belly and out came the elf. But the bear continued eating the doe. Then said the elf, "Seably will be your feet, your eyes small, your tail stubby!"

In a little cave the elf grew up. At last he decided to go to his grandmother, the rainbow, and there grew more. Then he decided to fight with the thunder. But his grandmother said, "Don't bother with him; he is evil and will harm you." "No," said the elf, "he can't hurt me!" "What! Who are you that he can not harm you? You are weak." "In the morning," said the elf, "I will try conclusions with the thunder. I will shout to him!" At dawn came the thunder and they fought. "He did not wound me," said the elf. "He kicked me but did not hurt me." And he pursued him to the end of the world. "I will wrap myself in a red feather, grandmother." "Put ashes all over your body and urinate," she advised him. "The rain will not hurt me," said he. "Good!" he cried. "Come out, rain!" The rain came and it was very cold, so cold that the elf died, but revived again. Then said his grandmother, "Don't bother yourself about these things!"

Then he arose and went to seek him who had killed his mother long before, the bear. He found the two cubs and killed and roasted them. The bear was away digging out caecomites. When he came, the elf said to him, "Eat this food which I have cooked." And the bear ate it. Then cried the bunting, "Who is this who eats his children?" "What did you say?" asked the bear. "Yes, this root resembles my child's foot!" Then the elf fled and the bear moaned, "Where have my children gone? They are cooked and dried with caecomites!" Then he said to the bunting, "I will go and follow him, and I will kill him if I overtake him. I am afraid I will not overtake him, but I will try."

THE OLD PEOPLE⁴⁶

le-lo''	hoŋ'ipota''a'l	hokóŋ'í'enoma-ic		unik'we't.	
Long ago	the people	the not believed		in world.	
kieNo'ma-ic	hoŋ'ixai''	pi'exo-t	hotana't	kī'sili'p	
Believed	the bear.	Ate they	the seed.	All	
k'ona'ka	t'xí'exot	le-lo''	hoŋ'ipotaha'l	kiexo'tene	
root	ate they	long ago	the people.	Were poor	
hoŋ'ipotaha'l	le-lo''	ts'ka'te-laxka''	kera'	pante'lot	
the people	long ago.	Naked,	no	pantaloons.	
pi'exot	kas	tepaste'n'	pe'exo-t	kas	taa'p'
Ate they	only	root,	ate they	only	deer
tui'exo't	kī'sili'p'	hawa't'axoyo-tela'p'		homa't'e'lak	
to eat.	All	therefore lived they		the animals	
tuwela'k'	koxo'yo-tela'p't'o'	t'o-sa'xten'		kiexa'u'	
in this land;	they lived did	the birds.		They ate	
mu'i'	hoŋ'ipo't'	tax	map'	ke'ta-i	lime'x
antelope,	the Indian,	and rabbit.	They made	blanket	
huŋ'ik'e'so't	taene'l	me'tam't'ele'		pet'ene'k'o'	
the to protect.	Some	when hunted they		shot him	
hop'a'e	a'mepe'exoto	top'a'e	ta'mepetakt'ona'sil		
the elk.	Then ate him did	the elk.	Then made did the acorn mush.		
ta'mepetak	to-ni'su'	t'o-k'a'mta'	te'e'lo'to'		
Then made	did the skirt	of the tule,	wrapped him did		
hopa'so'	pa'xo'	tote'aname''	te'a'mo'	hopa'so'	
the her child,	put him	in the cradle,	wrapped him	the her child.	
ta'miyi	kī'to'	ma'a'u'	hopa'so'	'umtite'o'm'	
Then went,	went did,	carried him,	the her child	on back;	
ma'a'wu	hop'e'talo'	ua'wel	ne'ŋ'	hé-lka''	
carried him	the carrying basket.	Went	bring	wild seeds,	
ne'ŋ'	hopa'sil	no'iyot'on'	k'a'p'	p'a'pex	
brought	the chia,	gathered again	acorn,	china oak.	
a'miyax	ni't'a'M	po-l	xwe'nŋo'	la'mŋo'	kera'
Then came	to house,	roasted,	arrived did,	ate did.	Not
kuyumts'e'na'i	hu-ma't'alla		pa'xai-yot		na'i'
not knew	the whites;		afraid they,		ran
humt'opo'iyela'	ei'tlip	t'a-exe'l	pu'lux	umt'e'lik'tén	
into mountains;	died they.	Some	entered	into caves.	

Long ago the people did not believe in the world; they believed in (like ?) the bear. They ate all kind of seeds and roots and were very poor. They were naked and wore no trousers; they ate only

⁴⁶ Told by Maria Ocarpia, 1916.

roots and venison. Then all the animals lived in this land and all the birds. The Indians ate antelope and rabbit. They made blankets to protect themselves from the cold. Some hunters were able to shoot elk and ate them. They made acorn mush. They made dresses of tule. The women wrapped up their children and put them in the cradle and carried them on their backs. They also took their carrying baskets and gathered wild seeds, chia and acorns from the china oak. When they returned they roasted the seeds and ate them. They were not familiar with the white people and were frightened when they came. They escaped into the mountains; some died and some hid in caves.

THE ECLIPSE⁴⁷

kekake'msałi's	lelo''	ce'tipona''	emak'a'i	
Was I in San Luis	formerly.	Dead the sun,	dark,	
ts'ne'teL	me'ten'	poxna''	ta-meti'e'o'p	hona''
cold.	When again	rose sun	then beheld	the sun.
exa'ho'tipo''t'	ta'me.alsa'lotipota'ha-L			ka-ki'nyi'
Frightened the people.	Then prayed the people,		thought	
ti'jino''	unk'waL	p'exai'to''	tamets'e'tenho'tipuť'a-L	
that finish	world.	Dawned then.	Then content again the people,	
na'lyeton'	to'ixto'	ce'tep'na''		
awaited again	one more	dead sun.		

I was in San Luis Obispo when there was an eclipse. It was dark and chill. When the sun rose, it appeared eclipsed. The people were frightened and prayed; they believed that the end of the world had come. Then the sun came out again and they were relieved, awaiting the next eclipse.

THE TORNADO⁴⁸

ya'mo	ke	hots'a-ka'i'	ts'a'kai	k'e'weL
Saw	I	the wind.	Wind	north,
ts'a'kai	p'a'nol'	ki'k'ate'tep'	hots'akai	p'a'nol'
wind	south,	they contended	the wind	south.
ta'meexa'lo't'	exa'lok'e	na'ik'e	tum'peti-'oeko't'	
Then frightened,	frightened I,	ran I.	Then fell the snake	
t'ca'	me-p'o'exai	ta'metumts'abe'L	emo't'	ts'abe'L
water.	When dawned,	then fell snow,	thick	snow.
a'metom'	k'a'ne'L	me'peexa-ito'		ta'melahu'a'p
Then fell	hail.	When dawned did	then ceased.	
na'	ts'a'lankwaL	ta'miya-tek	ne'uk'e-	t'a'kata
Sun	clear.	Then went I,	brought I	wood.

⁴⁷ Told by Maria Ocarpia, 1916.⁴⁸ Told by Maria Ocarpia, 1916.

ʔa'meco-n' ʔ'a'a'u' ^w ʔa'melalo xo'ʔapai' ʔamiya-tek
 Then kindled fire. Then threw out the ashes. Then went I
 ʔene'' ʔ'ea' neŋk'eʔ'ea' a'mexwe-ntek ʔene''
 to fetch water. Brought I water. Then arrived I to fetch
 ʔ'ea' ʔa'me-tak xolama'u' ^{wi} ʔa'melamtekt' o'
 water. Then made the food. Then ate I did;
 ʔamenal-k'e'ʔ' o' ʔa'miya-tek kike'ʔo' neŋk'eʔo'
 then filled I did. Then went I: went I did. Brought I did,
 peliete'na'p'koke ʔa'kaʔA ʔa'miyaxtekt' o' naye'mk'e'
 chopped I wood. Then came I did, brought I
 ʔa'kaʔA nunti'te' o'p
 wood on shoulder.

I saw the winds; the north wind and the south wind battled. Then I was frightened and ran. Torrents of rain fell. When the morning dawned there was snow, thick snow. And the hail fell. When it dawned they ceased, and the sun came out clear. Then I went and got wood and kindled the fire. Then I threw out the ashes and went to get water. When I arrived with the water I cooked breakfast. Then I ate and became filled and then went and chopped wood and brought it to the house on my shoulder.

THE FAMINE YEAR⁴⁹

le-lo'' k'a-no' lice' ekomólice'' kerale'exai''
 Long ago thin year, bad year, no rain.
 la'pai lice' tike'rala-man' pe'exo-ʔ paxa'k
 Three year that no food. Ate they bones
 ma'ʔ'a-L ʔ'ot'o'iy'o' ʔ'oxo'L pamo'' ʔámepetakʔona'sil.
 white pounded mortar. Ate, then made acorn mush
 ʔopat'a'k kerama'ʔ keraʔaa'p k'anékete'a''
 manzanita. No animals, no deer. Thin great.
 kiexa'no seneste'L ʔoke'exo-tene' ʔipoʔaha'L ʔámeʔi'ka'
 They ate alfilerillos. Poor people. Then was
 ʔ'oi' te'ine'' poku'ʔ'xo' t' o'ix^{yu} pa'so'
 one old woman killed him one her son,
 pi'exo' papa'to' ko'lɬ'a'L opa'so' ʔa'mexwen
 ate him, roasted him. Was hungry the her son. Then came
 o'asa'k'o' ʔa'mepetenetó' o'ape'u' la'pai ʔit'e'ni'
 the his uncle; then shot arrows did the her brother three arrows,
 péexo'pa'so' lalé'xo' oko'xe'eʔo' pe'exo' xelk'a''
 ate him her son. Shot her. not buried did, ate her coyote.
 k'ane'' kete'a'lelo'' oʔipoʔaha'L okúeitlip
 Scarcity great formerly. The people not they died,

⁴⁹ Told by Maria Ocarpia, 1916.

okma-'yal'	umla-'mka	pí'exo-t	ho-emaíyík'
the that lived	on coast;	ate they	the abalones,
te'a'haliltena'	umtieu'-'wu't	kéralama'u'	powa'tka
thin	in their breasts.	No food,	seaweed
t'mí'exo'			
to eat.			

Once there was a famine year, a bad year. For three years there was no rain and no food. They ate bleached bones pounded in the mortar, and acorn mush made of manzanitas. There were no deer and no meat; it was a great famine. The poor people ate alfilerillo seeds. One old woman killed and roasted and ate her son; was very hungry. Then her brother came and killed her with three arrows because she had eaten her child. They did not bury her but left her to be eaten by the coyotes. It was a great famine. But the people who lived on the shore did not die because they ate abalones. But even they were thin because they had nothing but seaweed to eat.

THE EARTHQUAKE⁵⁰

leskosna'tpeteko'	kekai'yot'ewe'	yi'te'e	hola'k'
When was child	was earthquake.	Shook	the ground;
ke'xite'nop	hola'k'	umtieu'wee	t'a'm
split	the ground	at Cholam.	Then
			we thought
t'eyinkwe'L	exa'lhoka'	lu'wale'wu	lee'
that would end world.	Frightened we.	Long ago	years.
			To come out
hoewa'xto	te-la'k'	kete'a'	yite'elak'
the fish did	of ground.	Great	earthquake.
			The animals
exa'lho'	hote'xa'	t'oyetewe'	t'ola'k'
frightened	the water	of the quaking	of the earth.
			The trees,
hop'at'ne'lat	ko'xote'p	tela'k'	ee'p'etep'
the oaks	they bent	to earth.	Frightened,
			prayed they
p'te'loto			
bellies.			

When I was a child there was an earthquake; the earth shook and the ground cracked in Cholam. We were frightened and thought that the end of the world had come. It was many years ago. The fish came out of the ground; it was a great earthquake. The animals were frightened at the water from the earthquake. The oak trees bent to the earth and the people were frightened and fell on their faces and prayed.

⁵⁰ Told by Maria Ocarpia, 1916.

PART IV. VOCABULARY

In the preparation of the present discussion, all the data available were collected and transferred to card-index and arranged under their respective stems. As the data were large, a considerable body of material was thus secured which is presented in the following pages both for the better understanding of the accompanying texts and for purposes of comparison with other Indian languages. Unfortunately it will never be of any practical value, as the Salinan dialects are doomed to extinction in a very few years.

Practically all the material here presented is from three sources, the forms collected by myself from the surviving natives in recent years, those recorded by Sitjar more than a century ago and published in his Vocabulary and those recorded by Henshaw in 1884 for the Bureau of American Ethnology. To these have been added a very small number from the vocabularies of De la Cuesta, Yates and Gould, Coulter and Taylor. The forms recorded by Henshaw are for the most part phonetically correct and required but few and uniform changes to make them conform to the most modern phonetic usage.

The largest extant vocabulary of Salinan is that of Fray Buena-ventura Sitjar, for a long time the resident padre of San Antonio Mission. This is quite large but almost inaccessible to the student on account of the faulty system of orthography employed. Practically all the characters of the English alphabet with the exception of *v* and *w* are found, and in addition, many superscript characters, characters crossed by others and by lines, besides various diacritical marks such as asterisks, crosses, acute and grave accents and subscript accents, compounded characters and other similar usages. Comparison shows that no uniformity has been followed in the orthography, rendering the work quite useless for one unacquainted with the language.

Most of the characters naturally have the approximate value of their correspondents in Spanish but the sounds not found in Spanish require some explanation.

The alveolar stop *t* evidently gave Sitjar his greatest trouble and has been written most variantly as *z*, *e*, *zp*, *tz*, *tzz*, *tzp*, *ts*, *pe*, *ch*, *e* crossed by a line, etc.

The fortis stop was generally expressed by an asterisk after the vowel.

The alveolar sibilant *c* was written as *x*, *ch* or *z*.

The dental sibilant *s* is found as *s*, *z*, *ss*, *zz*, etc.

z has been found standing for *t*, *tzz* for *ts*, *x* for *ts*, *x* for *s*, etc.

Most of the other phonetic peculiarities, such as *qu* and *e* for *k*, *g* and *j* for *x*, *ch* for *tc*, etc., are explicable by the ordinary usages of Spanish.

An initial consonantal cluster is generally preceded by a preposed vowel, evidently on the analogy of Spanish.

On the whole the orthography is so irregular that little reliance can be placed on its accuracy unless checked up by modern researches. When this is done it is seen that the change in the language has been very slight in the century and more which has intervened since the completion of the vocabulary.

Sitjar's vocabulary has therefore been transcribed to phonetic characters as accurately as possible following the evidence presented in cases where the modern form has been preserved. In the majority of cases, forms taken from Sitjar and absent in the modern material are accompanied by the sign (S).

In a few cases of possible confusion, forms from the San Miguel dialect have been accompanied by the sign (M).

The lexical forms have first been arranged in their several categories as nouns, verbs and so forth, and in some cases further subdivided. They have then been arranged in several columns giving the Antoniaño form, the Migueleño form, the plural form, which unless specially noted is from the Antoniaño dialect, and finally the meaning. In these columns the ordinary alphabetic order has been followed for convenience in consultation.

In very many cases, due to a lack of sufficient forms and to the presence of prefixes, infixes and suffixes, the exact form has been impossible to determine. In such cases the doubtful elements are enclosed within parentheses. In the case of verbal stems, those occurring only once, and for this reason of doubtful accuracy, are preceded by an asterisk.

NOMINAL STEMS

ANIMALS

<i>Antoniaño</i>	<i>Migueleño</i>	<i>Plural</i>	<i>Meaning</i>
awa'tén	a-we-te''	awa'tuel	fly
	eat'		bullhead-fish
ca'kníl	era'kníl		Lewis woodpecker
ca-xwe	sa-xe	ca-xten	bird
ska'tata	eko'tatə		ground-owl, gray titmouse

<i>Antoniaño</i>	<i>Migueldño</i>	<i>Plural</i>	<i>Meaning</i>
ek'an	ek'an'		prairie-falcon
eka-k'	eka-k'	ska'k'tenat	crow
ek'ot	ek'ot	sk'o'telet	snake, worm, grub
	elot		gull
	emaiyi'k'		abalone
eukunui''	eokonoi''		horned-owl
euwa''	ewa'	euwa''neL	skunk
eu-mk'o'm'	camko'm	cumk'omona'neL	squirrel
	en'n'eun'		small ducks
swan	ewa'n	ewa-ne't	fish
swakaka'	ewa-kek'a''		lizard
e'eece	ee'eesi		gopher
	emace'		male squirrel
e-ts'			pinacate
etskutch'a'ten			tarantula-hawk
tik'e''	i'ke	tik'eneL	louse
ilka't	ilka't		ant
kalep'a'n	kelep'a'n		Mexican bluebird
		kats'a-ne'L	small birds
	kalan		blue-crested jay
kalwateai'	k'aluat'e'a'i		house-finch
ka'lak'	kalak'	kalak'ne'L	goose, crane
	kaca'p		mosquito
kacala'	kaenlo'		grasshopper
	kiopets		Lawrence's goldfinch
k'eu'i	kiteili'tna		kingfisher
klau'it			band-tailed pigeon
kol'	kol	kolane'L	hare
	kocai'ye		tarantula
	k'aiya'k'		mountain-quail
kiltan'	k'elt'u''		red abalones
la'kana			spider
	La'ma		gray rabbit
la''	lap'		raven
	lape'		tarantula-hawk
leat'	helpa't'	leat'ten	duck
lme'm'	leme'm		wasps, bees
le'ponta			teal
le'rporti	le'rpati		Gambel's sparrow
Lk'a'	helk'a'	elk'ane'L	coyote
		elk'a'lekten	
loina'	t'lai		Canada goose
	lowe'eat'		small antelope
ma'kil	ma'kel		rat
map'	map'	map'tenat	rabbit
		map'a'neL	
masau'hal	masau'wel		eel
matse'ko	mats'e'ko'		chipmunk
ma'ts'we'l'			humming bird
mu'i'	mu'i'		antelope
	naiyok'		clams

<i>Antoniaño</i>	<i>Migueldño</i>	<i>Plural</i>	<i>Meaning</i>
naka'k	note'		pocket-gopher
ae	p'ae	acte'n, astemat	young antelope elk
pela'ka'	pala'kak'		California woodpecker
-	paṭalti		two pronged buck
pete'ts	pe.'lts'e		humming bird
pi'ukute			ruby-crowned wren
	p' n'lxoi'		lark finch
sam'	snaam		sucker
	santōn		wildcat
	sapele'		black ant
	sektai-kna		shrike
	senese		one-pronged buck
	septa'L		stinking ant
senkahl	senk'ol		unidentified fish
sepo			snake
selo.'i'			doe
	siata'nil		mouse
sit	set'		swallow
	sik		cañon finch
	sitaipin		red-headed woodpecker
	skalo'		animal
skele'le	skele'le		whippoorwill
	ska'n		sparrow-hawk
	sk'e.'n		blue crane
skaiya''	s'kai'ya	skaiyana'nel	shellfish
sk'almo'k'	sk'almo'k'	sk'almo'kten	raccoon
	slip'o'pō		rat
	smate'xan		green-winged teal
smo'kat	smo'ket		quail
smekoi'	smekoi'	smekoiiten	bee
	smohel		rattlesnake
smokok'e'	smokike'		female skunk
smie			mole
sai'yu	snai	saiyane'L	cat
sna-k	sna'k		eagle
soko'ko	soko'ko		kangaroo-rat, tusa
	so'ha		butterfly
	sopokan		spotted faun
spe.k'	spi.k'		very small ant
	sp'oko''		red-tailed hawk
sto'	sto'		burrowing owl
	sumhe		fox
stamaka'la			young squirrel
suhao'ye			bat
swe'ho	swi.'yo		bat
	swaa'		black-shining flycatcher
	ta-lwa'x		male coyote
ta'lmui			crane
			worm

<i>Antoniano</i>	<i>Miguelño</i>	<i>Plural</i>	<i>Meaning</i>
taka'la			nuthatch
ta'nukupel	tap'te'L		Lawrence's goldfinch
tena'k	tepee'		crane
tesik'	teci'k'	ticik'neL	woodpecker
tē'u	tewe'		male antelope
	tik'mo''		owl
	time'hai		pelican
	te'te'		pigeon
tite'k			worm
t'ma'eax			great California vulture
t'o'i			badger
	t'o'io		seal
	t'sne		badger
t'a'i			sea otter
t'ai'	tahi		whale
ta-yiL	taiyeL'	tayiltena'x	bluejay
	taite'a'tak		flea
ta-li-ye''			crab
ta'muL	t'a'muL	ta'multenax	serpent
taa''	taa'p	taatne'L	puma
tapilale			deer
ta-xwe'ne'	t'a-xwe'n'		bat
taxai''	t'axai''	taxai'yukten	turtledove
tawai	tawo'	tawaiiten	bear
tetiyau'	t'etōyau	tetiyauutēn	turtle
tike'	t'ike''		salmon
	t'i-kola'		kingbird
	tinele''		small frog
	t'iope''		serpent
	t'oiyola''		grubs, worms
toolee	to-lo'e	tooleeua'nel	mountain lizard
t'o'xo	to-xo''	t'o'xolanel	gray squirrel
tea	tea		wolf
tea'la	teal		curved-bill thrush
te'am'	te'a'mi		Brewer's blackbird
te'eL'			red-shafted woodpecker
te'ele'u'			cricket
	te'e'mteem		bluejay
teik'	te'ikteik		bat
teoana'hi	taau'		fishhawk
	ts'aikē''		caterpillar
	ts'e'L		mottled snake
	ts'a't'enek'		yellow-bellied woodpecker
ts'ope'n	sopne't	ts'ope'n lax	owl
wakeno'			spider
wa'kit	wa'ka't'	wakitten	red-winged blackbird
		*wa'ka't' t'a'L	frog
	wa'lwal'		bullbat
wa'te	wate'		Oregon bunting
	wau		white goose

<i>Antoniaño</i>	<i>Miguclño</i>	<i>Plural</i>	<i>Meaning</i>
witecle''	wetcele''		bluejay, bunting
	wetelo''		martin
	we'tok		woodpecker
xaii'k			mussel
xalan''			crane
xane'o'			ground tit
xakele'	xapailo''		lizard
atee'te	xate'a'te'		yellow-billed magpie
xom	xo.'mi		roadrunner, ground cuckoo
ho'mlik'			quail
xopne'l	xo-pxe'L		red-headed vulture
xute	xutea-i	xoste'n	dog

BODY PARTS

a-pela/i	amel		finger, toe
a.'ak	o.'p'ak	axa'k	head
aa'ex	acx	aasxaknel	liver
axwe'm		axwenlax	skin, hide
a'u			animal's heart
ca'lo			shell of egg
ca'mteL			corpse
	cipainism		sole
	cma/i		cheek
ek'o'il	eukaiei		lung
euke'neṭ	eoke'neṭ'		eye
	co'wat		poison of snake
co'wan	cuwa'n		calf of leg
cu-la't', so-lo		sola'xo	testicles
	cpai'atak		beard
eiwi's			spine
e'lek'	elik	elekne'l	mouth
e'neṭ'	e'nenat	xe'neṭ	nose
	e'ntat		ear
ecax	aca'x	ecaxneL	feathers, whiskers
etala-k		etalakneL	antlers
eṭea-i'	ei'te'ai'	eṭeaiila'x	neck
ita'l	e'taL		shoulder
epa'l	i'paL	epa'ne'L	tongue
e-xiwai'		e-xiwilai	heart
exoxo'	ihoho'	exoxa'lax	brain
		exoten	
		exotenax	
	exas		body
ewa'la	ewa'l		fish scales
ets'e'u	its'e'p	ets'e'wulax	tail
icaha'l	isxaL		urine
iexe'u	iexe'p	iexepa'l	foot
		iexe'e, iexe'xe'	
		iexe-ple't	
icele''	i'eilip'	isi-lewula'x	nails

<i>Antoniano</i>	<i>Migueleno</i>	<i>Plural</i>	<i>Meaning</i>
ico''	icu''		breast
iek 'o' 'ol		icok 'alet	ear
ikau''	ikau'		body
ika'n	ika'		belly
ita-la'k'			horn
ita'e			urine
	its'a'lto'		point of wing
ihalte'ya			saliva
ka'ke'lt'a			testicles of animal
kaewatni'lea	ke'exaul		eyelash, eyelid
ke'o		kelao	knuckle
ko'la'le'		ko'latle'	penis
k'uwoke't'	ko'uaki't		hair
	kuma'n		belly of fish
la'k'oi'	la'k'ai		neck
lamha't			lung
	le'wet'		lips
lko'ik'tén'		lokoiyini'	beard
lo'kon	lu'kana		rump
	lo'taL		palm
ma'pok	ma'puk'		thigh
mas			pubic hair
mat'	ma't'	ma't'e'lak'	meat, flesh, animal
mata'n	mata'n	matane'l	limb
me'n	me'nen	mee'n	hand
eno' 'ol	noL		penis
	notapka'co		lung
o'oi'			trunk, body
uca't	oca't	ucate'l	tears
o'na'a'i'			waist
	otewo'ts'o'		feather
o'xot		oxote'n	testicles
a'kat'	pa'kata	akat'xe'L	blood
akainai'	pakenai'		animal's womb
a'kateanai	paktaina'		thumb, big toe
p'xat'	p'xat	p'xa'teLet	excrement, intestines
	pa'telpai		third finger or toe
axa'k'	paxa'k	axa-ktén	bone
		axa'kLet	
	pa'mat		carriage
pena'no	pena'n		milk
pē-nik'ai			throat
oxwe'm'	p'oxe'm'		tendon, ligament
setilkai'	ske'nluwe		first finger
	sie't'		feather
skan			stomach
aske't, swyt	skaniltai,		rib
	kane'lt'o		
askwe't, swat			heel, sole, talons
skoikne'	sxko'i''		chin, beard
	smo'kutu		animal's windpipe
	snipik		bones of wing

<i>Antoniano</i>	<i>Migucleno</i>	<i>Plural</i>	<i>Meaning</i>
so'non	sa'nan		leg
sa'tik	soti'k		elbow
sa'nat'	spa'nat		skin, hide
se'kel	spe'kel		eyebrow
spoke't	spoke't		fur, hair
spuk			muscle
	suluknai'		tooth
taknat	takna't		sweat
	tamai		third toe
	t'an		animal's tongue
	te-rwa'k		second toe
titaka'L	te-tek'Enel		egg
tema'i			bird's entrails
te'rk	tie'k		animal's gall
teteka'i	tete'ka		animal's joint
tetse'lei	titsele'l		rattles of snake
	tikai'e		bird's crest
	tilta'l		breast of fish
	titertikup		knuckle
	ti'to'k		second finger
tite'o' 'mo'	ti'te'o' 'm		back
	titeai		wrist
toho'l	to'hul		lung, gizzard
tolola'i			animal's windpipe
tulalna'i			bird's crest
ta-L	ta-xL		forehead
ta-t	t' aL		skin, hide, flesh
t'e'pen	t'e'pen	tepenla'x	belly
t'ka'ten		t'ka'tna-x	buttocks, anus
to'poi	t' o'p'oi	topo'ilax	knee
t'o'puk	t'ne'puk'	topokLe't	arm, wing
		t'eaknel	gills
tee'nya			glans penis
teokelti'nai			ankle
uca-t'			lips
ule-t'	oi'Lit	le'het	teeth
u-	u-		face
uprent	upe'nt		fat
xapi'cnewe-t			navel

BOTANICAL TERMS

	atLo's		wild oats
awu' 'L	awul'		bark
a-xo'L		axone'L	tule
ayexte'ya		ayextel'i'ya	seed
ca'l		ca'l'tine	bud
ek'ua'			<i>quijara de pala</i>
	ek'alo''		large soap-root
	epo'k'at'		clover
	epoku'mt'a		
ca'tala			brush

<i>Antoniaño</i>	<i>Miguelño</i>	<i>Plural</i>	<i>Meaning</i>
etan'		stanane'L	leaf
	elpe'no		blackberries
	he-Lka''		wild seeds
k'a:t'	kat	k'atsane'l	hay, grass
	k'a'cil		sunflower
	k'a'mta'		tule
k'a'	kap'	ka'te'L	acorn
ka'pité'			small young oaks
k'e	k'e		large pine nut
	k'ē'ciapowat		fern root
	k'eso'i'		tnua
ketipui		ketipuilax	cedar
	ko'i'yi		root
k'olopopo'			melon
	k'ona'ka		bulb, wild potato
	kote'e'L		cacomite
ku'katak			forest
makawi''	makewe'	makawili''	flower
	mātai''yi		milkweed
	mo-noi''yi		toloache
mopa'k'			laurel
mucnelit			ivy
	o-pls		wild grape
pa'siL	pa'siL		chia
	p'a'pex		post oak
at'	p'a''t	afne'L	white oak
		˘p'at'ne'lat	
pat'ax	pat'a'k	pat'axtén	manzanita
askle't	paxa'kil		live oak
	pæa''		huckleberry
	pæxe't		willow
	petL		grass
	peyexte'to'		seedlings
	powa'tka		seaweed
	pamputen		fruit
	tenpute's		fruit
saxe't			mescal
	seneste'L		alfilerillos
	smat		brush
	smo'		acorn
	smo'kumel		clover
	sxau'wit'		acorn
	tana't		seeds
	tana'st		wicker
tate'			grains
	tetai'		small soap-root
	teta'p'ko-L		elderberries
tepa's	tepa'so		root
	t'io'i		oak
	t'i'pi'		acorn
	t' Ma		mescal

<i>Antoniaño</i>	<i>Miguelcño</i>	<i>Plural</i>	<i>Meaning</i>
	t'oma's		grass
	toma-'L		milkweed
	t'onawa''		grass for baskets
	toipen		gooseberries
ṭaiya'e			flower of mesal
ṭa'ka'at'	ṭa'kaṭa	tak'ane'L	wood
ṭala'm	ṭoela'm		tobacco
ṭa'pin	ṭamoina'eo		stump of tree
tata	ṭa't'o'		fruit
	ṭepastēn		root
ṭetaeo	ṭita'eu		juice
ṭ'o'	t'o'	ṭotene'l	pine nuts
ṭoki			brush
	te'e'lak		barsalillo
te'o'			pine
	te'o'Lo		wood for pipe
	ts'eta'kil		chuckberries
xa'ke			spine
xo'le			acorn
hasli't'			live oak
ha'siL			acorn

MANUFACTURED OBJECTS

ai'ye'			wooden pestle
a'eime	a'eime		paper, book
a'ne-n			pillow
taaneka	apenik		necklace
aso'L			cord, line, string
alokoni'ya		alokotini'ya	oven
	eonomo''		comb
(ṭ)eik'	tea-k	tea-k'eL	knife
eenii'	eik'Enai'		fish-spear
elā'	ela'	ela'at	coil basket
elemiy'a	ele-mi'		coat
eo'pa			needle
	cotolo'		feather headdress
	e'tapalepi		breech-cloth
(ṭ)a-m, (ṭ)e-m	(ṭ')a-M	ṭama-neL	house
		ṭa-ma-tén	
		ṭa-ma-tenáx	
		ṭa-ma-niLáx	
		ṭamaniltēn	
elkai'tingey'a			door
(ṭ)e'tak	(ṭ)eta'xk		awl
ek'es			blanket
et'oi'yin'	et'eyini''	et'eyitinai'	arrow
icemet			bed
ioko'e			breech-cloth
itxau'			cane
	kanelt'o'		storage-basket
k'uallane'l	kanelt'o'		jewelry

<i>Antoniaño</i>	<i>Miguelcño</i>	<i>Plural</i>	<i>Meaning</i>
keluktu'xne		keluktuxtine	prison
kitpe'lel			paint
kitpekle'y'a			ligature
k'enin	k'one''		acorn-bread
kua-p'	k'Uwap'		sweat-house
laha'm	laxa'm		door
	lemi', lime'x		rabbit-skin blanket
moxweto			sack, bag
mawe'ya'			net-sinker
	mosiwe'		fish-pole
asi'l	na'siL		acorn atole
olient			whiskey
o'nus	o-ni'sn'		skirt
oxwa't			moccasins
ame'ya	pana'me		quiver
	payosne''		whistle
	pane', p'an'E		pestle
pape'ye			beads
	paxuwe'		bow
	pasuwe'r		doll
	p'a'taL		carrying-basket
	pe'u''		bones for game
pili	pe'Li		pid
unawi''	pomnawo' 'e		arrow-straightener
salinhe'ya			fish-net
	sa-ma'k'		winnowing-tray
	sap'k'a'ts'		seed-granary
	sas		acorn-meal
sekeueṭni'a			olla, pot
setami'ya			cap
sikara'na			clothes
	ska'pe, sk'a'pe'		tray, cooking-basket
sone'y'a			snuff
sokai'kis	su-kaikis		floor
	spok'ai'xa''		drinking-cup
	t'a'iL		trap
ta'tukat			meal of seeds
	teca''		basket
	tecoina'		basket game
	tekausno' 'o		small pots
	teki'wi		bed
	t'e'ltaL		hunting-net
	t'enika'ntec		bridge
taple'ya	t'anoṭle''		fire-sticks
ti'exa'			money
te'penea	tipintea		whiskey
teṭ'amnai	teṭ'aut'ono''		rattles
tiexlolo'			doll
	t'kamatl'		shallow grave
t'aa'k			handle
t'a'uun, t'o'nt	t'ano		pipe

<i>Antoniaño</i>	<i>Migucliaño</i>	<i>Plural</i>	<i>Meaning</i>
ʔanaʔʔ			bar, drill
ʔauʔusi.ʔaʔ			bed
ʔemeʔ	ʔaynʔwie		well
	ʔo-naʔL	ʔemeleʔn	instrument
	ʔopai		seed-beater
	ʔopoʔs		fish-basket
ʔxoʔl	ʔʔoxoʔL		twined-basket
ʔoʔwiʔi	tuwipeʔ	ʔowiʔiliʔ	mortar
	teʔanameʔʔ		raft, boat
teelelaʔo			baby-carrier
	teʔoxoʔk		leggings
teuʔleye			cocoon-rattle
teueykeʔʔya			<i>ishy</i>
tsaʔʔa			trap
tseʔnto			blanket
tsʔwaʔketiʔʔ	tsʔwaʔke-toʔʔ	tsʔwaʔketiliʔʔ	arrow-point
wamotamuʔ			hat
xakʔeʔiʔ, xakʔ		xakʔeL	wall
		xakʔten	bow
xaʔnis	xeʔnes		beads

NATURAL PHENOMENA

aiyateʔya			garden
asakʔa		asakʔteʔnat	flint
(t)eaʔ, teʔaʔ	ʔʔeaʔ, tʔeaʔ, teʔxaʔ		water
capaweʔ			tide
ekʔem			sea, ocean
ekon		ekonaneʔl	glade, cave
eoʔkʔaʔ	soʔkʔa	eoʔkaʔatén	river, brook
	eoʔxwal		
		eoʔketeʔnat	red stone
eotalaiʔ	eʔpaʔtalai		limestone
(t)exoʔ	exoʔ	(t)exo-neL	earth, ground
(t)exaʔ	exap	(t)eaʔpanoL	stone, pebble, rock
euy			fire carried
ieʔxai	esʔxai		morning, day
iki-n	tikeʔn	iki-nil	nest
ilpoi			lake
iotilak	yeʔtewe	iotxelaʔkʔ	earthquake
kaiyaʔma			white clam-shells
	kapiliʔnsa		tide
keʔeuneʔL	kʔaʔuneʔL		hail
kaʔwe			sun, heat
keʔʔmeʔʔ			hump, ball
keʔʔpoiʔʔ			hill
	kʔʔyix		forest
kʔciʔkatʔiʔ		kʔciʔkʔetʔyi	slope
kʔeoʔluxne	ealakuaiʔ	kʔeoʔluktene	hole, cave, hollow
kutatʔ			buckskin
lakʔ	la-kʔ		country, land

<i>Antoniano</i>	<i>Miguelño</i>	<i>Plural</i>	<i>Meaning</i>
leia'	lap'e'		wave, sea
le'ma	Lem		sky
	lo'to'		clay
	loiyan		mountain
lu'a, lu'e ^a		luaten, lue ^a tén	path, trail
macala'k	macila'k		morning star
macita'ma			shade, shadow
moe'e'	moe'e'	mueale'	charcoal, flames
moe'o'no			mound, hill
na'	na'		sun
pa'i.'	pa'y'		cloud
saiya'N	saiya'pa'		rainbow
smak'	smak'		asphaltum, tar
smak' ai	ema'k'a'i	sma'kaiyatél	night
sokanto			lightning
spe'het			soot
ta'pit	ta'pmit		storm
telukutca'			spring of water
	t'en		prairie
t'ila'xten			ranch, farm
	tukalalo'pi-cte'		garden
t'ulne			hill
ta'a'u'	t'a'a'u'	ta'a'unel	fire
ta-kai''	taikai'		salt
ta-ke''	take''		road
ta-yi'ya	ta-paiye'		dust
ta'te-t	ta-tet'		smoke
	ta-tsuwa'n	ta-tewa'nil	stars
		ta-tewa'niltén	
ta-ts'o'opi'	ta-ts'o'pe'		moon
te-le'k'		*te'lik'tén	holes, caves
t'e'lowa'	t'e'lxo'	t'eluwa'xel	thunder
		t'elowile	
teko'i	t'i-k'o'Yi		whirlwind
ta'a'i	ta-pai', top'ai'		ashes
tpoi, tpoi, tso'la	t'op'o'iya	t'opo'iyela'	mountain
	t'o'poi-yip		Pleiades
te'ewuni''	te'anone''		light of day
te'mnye'L	teo-mia'L	teumiane'L	ice
ts'a-kai'	ts'a-kai''	ts'akaite'nat	wind
ts'ahe'L	ts'ahe'L	ts'axanel	snow
ts'ensiL	tsi'ntsin		sand
ts'opo'	sa'pa	ts'oponeL	fog, frost
emk'we'L	umk'we'L		world
xaipe'ya			escarbason

PERSONAL TERMS

ama''	ama''	paternal grandfather
ane'wu	ane'w'	grandmother
apai''	apa'i	mother
	ape'u'	brother

<i>Antoniaño</i>	<i>Migueldãño</i>	<i>Plural</i>	<i>Meaning</i>
sa-k	asa.'k'		uncle, mother's elder brother
	apa'e		father's younger sister
a'teloi, aya.oi		aya.eloi	companion
a'u'kai			lord, señor
a'xomo			foster father
epeselet		epesele'lmet	enemy
e'pex	exo', e'pex		mother
e'sxa	tamasa'xo	*te'msaxten	cousin, younger sister's child (nephew)
e'xwat	oxwa't'		mother-in-law
iko'lu-ne'			fool
	i'la		friend
inexa'		inelkxa	relation
ienxe'			parent
insaka'		insakte'n	godson, adopted son
ito'l		itolane'l	brother
kaet 'elmak'		haet 'elmilok	talker
ka-i	ka-iyə''		elder brother
kano'dile			trader
k'e'nea-nil			God
	ket 'ne'		white people
	keue'aea'		uncle
k'weL			people
la	lan		husband
lemikela't	lamek' nela.'t'		Coast Indians
	La'pae		father's elder brother
lets'e''	lene''	lee'tsen	woman
lu-wa''	lu-wai'	*luaya'to	male, man
mace'l			great-grandchild
	mone''		mother's younger brother or sister
nene''	nene''		grandparents
nunenxa-yo			congregation
pas			father's elder sister
pe'	pepe'		elder sister
as	pa'so', p'a'so	*pa'seL	child, son
ek'	pexk	ekxe'l	father
se	seN	se-ts'e'n	wife
see'l			girls
	sepxa.'		child
setilka'i			great-great-grandchild
ska'ata''		sk'ata'ten	infant
	sk'amaxa n'		elf, dwarf
	sna'tpeteko'		little girl
sotopen			pet, guardian
ste.xa''		se-mta'N	boy
		*sme'ten	
stan'', etou''	su'kumku	skun'ta'm	girl, maiden
ta'iyal	tema'k		grandchild
takacan'	tekica'		twins

<i>Antoniaño</i>	<i>Miguclenõ</i>	<i>Plural</i>	<i>Meaning</i>
ta'	ok 'a'		father's younger brother
ta'kin	ta'ken	k'ta'nta	shaman
ta-k	to'nak		child of elder brother
ta'leu			brother-in-law
*ta-ma'	ta-m	tam 'a'ten	man
te.le''	tata'		father
	to'pacek		child of younger brother
	te'takwa		slave
tica'au, ti'eo			daughter
t'icke'm		t'ickema'L	Tulareños
tienkha		tie'nelxa	friend, family
tima'tL			elder brother's wife
timu'yo			congregation
t'on	t'on		younger sister
tos, t'o-s	tos	t'o'sen	younger brother
tuke'wi	to'mai'		daughter-in-law
tutai'yucap			blacksmith
taxate'y'a			gathering of Indians
		t'ela-t'xel	brothers
te'lem	t'e.le'm'		son-in-law
t'o'wat', t'eho't	t'epo''t'	t'u-t'a'L	Indians, natives
		*tipota'ha-L	
		*t'epot'ha'lap'	
t'inaihi, titeon		titeo'nel	enemy
t'o'xo-ke			murderer
teaiya''	tena'iyal		grandchild
celte''	te'ene''	slee'ten	old woman
		tei'nten	
steluwa''	teilwai'yI	steluwi''	old man
t'sa'iniya			former wife
	wa't'nak		nephew
xa-la'', axala'u	xala'		maternal grandfather
hapti'			widower
	hensi'		trader, peddler
	he'uwukulteaguLastel		interpreter

ABSTRACT AND MISCELLANEOUS TERMS

ani'ya'			liberality
ats		a'tsten	booty
ateeca'			health
a'xa-ti''			music
t'lea'kai	ca-l	*t'lea'xal	dream, revelation, amulet, luck
cele'			north wind
exomek 'i'			favor
e'ke'			direction, journey
elka'p			autumn
elpa'L, LpaL			spring, (summer, har- vest)
e'nex			bead measure
e'envi'			necessity

<i>Antoniaño</i>	<i>Miguclño</i>	<i>Plural</i>	<i>Meaning</i>
e'u			pain, inconvenience
iekonmitce'y'a			love-sickness
iewuteni'y'a			temptation
ilne'			summer
itomu'i'			magic wand, revelation
kai'e		kayte	carriage, bringing
kane'a	kane'		cold, influenza
k'a'itupke'y'a		k'a'itupke'ya	disenterring
kano'mtop			year
ka/keL	ka/keL	ka/keltenax	song
ka'u			custom
k'ane'nxax			thing above
kemi'li			amulet
ke'o			place, locality
ketpa't			snake-bite
k'ewe'L	k'e'weL		north, (west)
kitse'na			reflection
kla'mta,	kalam		sore, scar
klamte'ya			
konetco			place
ko'nxax	poknoyaluna'		afternoon, evening
koto'sna'		koto'stena	noise
kafo, cofo			place
kwa'lwai			swelling, inflammation
k'wa'l			season
kwa'l		*k'oleiyip	thing
la-e'y'a			pity, compassion
la'mka	la'mka		west, on coast, (south, north)
le.ta'na'	leta'kna		noon
lee	lee		east, (north, south)
lee'	lee''	elei'taneL	year, winter
	lo'le'		women's dance
mano			place, position
me'seamtea'			west wind
metsiliu			perforation
na'xo			quarter, cardinal point
nek			proposition
nowa-na''	nowana'p'		morning
oa'ik			ablution
p'a'nlo	p'xa'nol		south, (east)
paxat'			dance
pok			sickness
	p'e'nap'e'		fiesta, celebration
p'Le'to			pieces, bits
	sawine'		dance
	sewananhai		health
skael	skwa'l		scar, cut
sokani'ya			vision
ta'kat		takelet, talakat	work, trade
ta'Ixwalnai'			work

<i>Antoniano</i>	<i>Miguelño</i>	<i>Plural</i>	<i>Meaning</i>
taka'			gift
tauñye'			fever
tawa't			east wind
ten.a'so			happening
tesene'o			sickness
tewia't		tewililiat	promise
	tīat'aula'		wound
tipin, tipni'ya			pain
t'ica-kai			sleep
tiunni'y'a			sickness
tiṭaku			northwest
tehoní'	tihoní'		medicine
toye'm			cause
tu'o			composition, manner
tewa'eñu			first half of moon
	ṭ'a'kai'		pieces, bits
ṭatil			cold
ṭekeko			summit
ṭinai'o			flight
ṭo'kena'	ṭo.'kan	ṭo'kena-teL	day
	ṭokne'		smallpox
		ṭuxtine	hells
teaka		teakoi	time
teinimakwe'			lie
teap			sickness
tee'e'y'a			mark, sign
tsip		tsipe'ti	pomp
	tsoke'		battle
	wate'		law
	pia, hia		half of cardinal point
xapa'teo			division
	xīwē'i		men's dance
	xolowes		diarrhoea
		xomu'nilit	sins
xo'tapleta'na	xotapluleta'pna		afternoon
xuiwai'		xuyiliwai'	soul, memory, thought

VERBAL STEMS

A

(k)a'	ka, a'		say, decide, permit
a-, (k)a-n,	(S)		conceive (animal)
(k)a'h'a			
a'eik'mek			hit by shooting
a'cek	a'cel'	a'eil	sit, seat, (test, try)
acame	(S)		write
aik'nop	(S)	aiktinop	be tired, faint
ai'tim	(S)	aitilmo'	enclose
	(S)	aitilta'k	divide, distribute
(ke')a'yomic	(S)	(ke')ayomiclex	fix, mend

<i>Antoniaño</i>	<i>Miguclño</i>	<i>Plural</i>	<i>Meaning</i>
ai(k),	(S)	ayi'lik	defend, protect, retain
ait(em)	(S)	aitil(me), ayilit	guard, defend, intercede
a'yom	(S)	a'ylom, ayomil	hinder, defend
akea'		akcela'	be thirsty
	* (k)ake'l'		hung, be hung
a'ke'n-	a'ki'nyi'	a'ke'n	think
a'le'l(k)		a'le'lt(k)	ask, inquire
ale, 'alom	ale(k)	alilo-m, alele	teach, learn
aleknox	(S)		enter, introduce
(m)ale'n	(S)		unite, combine
alx		a'liyax, a'lile	desire, love, want
alsa'l	alsa'l(o)	alsa'ltenex (M)	pray (Sp. <i>rezar?</i>)
amalek	(S)	amolek	give alms, assist
(p)ama.t'	(p)ema.t'	(p)amat'el	chase, expel
a'menep	(S)		defecate
amaitila'	(S)	amaitiltina'	reconcile, make peace
'a'mes	a'mas	a'mesil	shout, cry, yell
a'male	(S)		gather food
a-mt'e	a'mti'	a-mt'ele	hunt
		amettine (S)	
amitei	(S)	amiteinmak	lie, tell untruth
amauc (S)	a-mo'e	amaulic	guard, preserve
		amaucelte	
		amaucelayo	
ama	amo'	ama	eat, suck gruel
a-m(k)	a'mk	a-mkne'lk	be able, can, kill
		a-mt'elik	
		a-mxot'e	
a-m(p)	a'menep	a-melep	arise, leave
a-mamp		amant'ap	extract, withdraw
a'nat(ax)			leave free
a'nem	(S)	a'netem	remain
anemt(ak)	(S)	ane'mtilt(ak)	pardon
	* (p)ani'k'o'		give
* (m)a' 'n			pass, enter
	* (k)a'nata		pound, pulverize
(k)apale'	(S)		place in line
* (p)apa.'i			copulate
(a)pak'a	(S)		close (door)
	a'pa-t		roast, <i>tatcmar</i>
(a)pamak'e	(S)		love
(a)pa-uye'	(a)'pa-u		overtake, catch
(a)pane'	(S)	apatene	kiss
(k)a'p'axtenop			smash, shatter
(a)pena'x	(S)	(a)penilax	receive
(a)p'ene' '(k)		apeinatile(k)	fill, cover with water
a'peL, ep'eL	a'pel, epel	ep'ena-teL	fill
apokop (S)	(t)o'pokap	apeknelop	be well, cure
apoi'lek	(S)		gather, collect
'a'se			bear, give birth
a'si(k)	(S)		reserve, guard

<i>Antoniaño</i>	<i>Migueldño</i>	<i>Plural</i>	<i>Meaning</i>
a'se	as	a'sile	name, call
(p)asteene' '(k)			beg, prohibit
'a'su, (m)as			think
	*(p)ata'lok'č'		lassoo
a'tanop	ot'oinop		rise, jump
(k)atn,(k)atipn,		(k)a'tap'nehe'	hurt, torment, oblige
(k)atee (S)			
(k)aten			rob, steal
a't'unk'a-x,			stick, fasten
atno'x			
atepnek	(S)		speak rapidly
ate'a-'wi'		ate'a-uli'	meet, encounter
(m)ateakat	(S)		be outside
		atee'weltek (S)	be cast, stretched
ateixtei(n)	(S)		beg
atsintea	(S)	atsinteela	anoint
*atsatak	(S)		cook, make food
atee, otee	(S)	antele	aid, assist
a-x	ax	a'yax	place, put, seat
a'xai		a'xa-iyot (M)	fear, be afraid
(p)axaya'u	(S)		separate, divide
*(k)a'xa-nla'			shout
	a'xap, axa'ta		climb, rise
a'xap	a'xaptep	a'xatep	die
*a'xat'a			touch
axatenap	e'xte'nop		split, part
*(k)a'xk'o'			be careful
(p)axo't		axoten	hunt burrowing animals
		axotot	
		axo'nilet	
axt'elik			insert, pour, fasten
*(m)a'we'xe,			stand firm, resist
exwe (S)			
au'we, a'weu		aewetenelo (S)	prepare, approach
awi			be hot, heat
C			
ca-ke' 'n			point, aim
ca'moc(k)			salute, greet
cumwel, camle'	samal		be blind
cap'	cap		extinguish, put out
ca-wena-ni			dance (ceremonial?)
*ca-xa'ta'			open mouth
cē'pa'lo'		ce'p'etep' (M)	be afraid, fear
etene	(S)	ectenele	bud, sprout, bear leaves
ee'tep	ci'tip	ee'tlip	die
ee'wili'		ee'wilt'e	lie down
(i)eko'	(i)eko	ekol	be, be there
	*eme'L		beat, strike
	*co-ka'		tear, split
	co'ke''no'	eukiutile (S)	open eyes, awake

<i>Antoniaño</i>	<i>Miguelcño</i>	<i>Plural</i>	<i>Meaning</i>
co'lukne			go through hole
co'me(n)			haul, drag, stretch, creep
co'k'a'iyik		eukai'yel (M)	kick, trample
co. ^{ua} L	co-L		climb, chase up
co'unc, cu'ne'	co-n'	cu-na'tilt	kindle, light
(i)exa'lo'	exa'lo	sxa'lho	be afraid, frighten
E			
* (p) ece.'u			defeat, gain
e'ek'waL			cut, saw, hit
eek'op	(S)		sew
* eiba'na	(S)		give
(p) eya'nekkx	(S)	(p) eyalenkkx	visit
* (p) eine	(S)		sting, pick, bite
* eipastas	(S)		arrive, overtake
	he'k'a'		tell, say
	eka, ika'		be, exist, be there
* ekatop'			go outside
ekona', ako'ne	(S)		add water
(k) elautptila.'pek	(S)	(k) elautptilila.'pek	be ent
	e.l'		go ahead
eleknox	(S)		conceive
elut'na'pek			pray
(e) ma.'t'			kill
emek	(S)		make cross
e'na-i	enai		wound, oblige
ena-ni''			observe, look around
* e.'nek			decide, say
* (t) enk'itox	(S)		season, make spicy
(k) eena' (S)	(k) eno'l		sweat
coni		onile	give medicine
epe'nox	epe'nox		swallow, gulp
ept'a'	ept'a'	a-pt'e'la'	be cold
(e) pt'en		(ke) pt'enil	scratch, wound
epts'e'n		epts'enla'	sting, bite
ep'te' o.'p'	opte'ep		become tired, tire
ese'l	(S)	esele'l	impede, obstruct
espolo'x			catch, seize
eta''	eta		make
etak'a'	etak'a'	etaki	call, shout
etaq'la			say, be said
et'eyine'	et'ene'	et'eyitine'	shoot with arrow
* (p) ete'le''			see
etxau'	etxau'	etxautilan'	have, possess
(e) t'a'k			tie, bind
* (p) etot'			spear
et'ek	et'a'kox	at'ek	stand, remain, halt
	e-te'o'i		suck
* eteo'ka'			be quiet
	(k) e'we-ts'na	(k) e'wets'its'tena'	cry, scream

<i>Antoniaño</i>	<i>Miguclño</i>	<i>Plural</i>	<i>Meaning</i>
ewia'mie	(S)	ewila'mie	presume
ewiate	(S)	ewiliate	do right, not to sin
*e'het'ē.ŋxa'			fly around
exoyuem	(S)	exoyuem	think
e'xwal		exwetele	grind, pound, hit
I			
ia, ie	ia, ie	ial	go
ia'tek	ia'tek	ia'tlek	send
iam, iem	ia-m	iamat't'e'	see
		iamaxetk	
iem'ó	ium		know
iemat	(S)	iematil	show
ia'k			guard
* (k) i'au	(S)		take, extract
iau(k)	(S)		do
*ia'ute	(S)		touch, tickle
iax, iex	iax, iex	iaxtel	come
ica-k	ica	ica-kai'	go, walk, wander
icx	icx	ecxot	eat
(i) eepix			pretend
(ki) e(a) k 'e.le'			roll, revolve
(ke) ek' a' lax			
'iexai'	'eexai'	'eexai'yal	dawn, arise at dawn
icim		icem, ostem	drink
icko'ne	(S)		be cruel
ieno'mie	i'enoma-ie	ieno'ma-ie (M)	believe
(t) ieo'p	(t) i'e'o'p		determine, find out
* (t) iepa' n			remove, cut (grass)
* iema-ni'k	(S)		begin, commence
ienk			contain
ie'nto	ie'nt' xo		approach, overtake
iete	(S)		be sent
(k) iewilte'	(S)		argue, quarrel
(t') ika' 'wu			do customarily
iak 'owe (S)	(k) i'k 'ate.		fight, battle
ilik	(S)		laugh
	* (m) ilyo.ta		pay attention to
(il) k'elpa,		ik'elt'epa	return, turn around
k'et' p' a			
elk 'ile'nxa'			return, turn around
ekele'ntxo,			return, turn around
ikile'nxa			
ilk 'ita	ik 'e.'so'		cover over
		* imanila' (S)	visit
imxoya-k		imxoue'le (S)	await, wait, rest
ineitil	(S)		contradict, reject
inemil	(S)	inemilte'	endanger, lack
iyó'hun			bark, cry
(a) yo'p(ik)		yop' L(ik)	stake, implant

<i>Antoniaño</i>	<i>Miguelcño</i>	<i>Plural</i>	<i>Meaning</i>
io'tsp	(S)		fornicate
ioxt	(S)		stir
ise.'na'		isi'tina	be ill, sick
isol			be compassionate
	isxa'teL		urinate
	*(k)ite.'mna		sound
(k)itpetmak	(S)		bite, chew
itea', ite'a', ete'e.		i'tciL	halt, stop, straighten
ica., iteu			lift, rise, surpass
*(k)itea			prepare
iteo'mnox		eteumtonox	fall, fell
ite'okmai	(S)		speak proudly
ite, ie, exe'	(S)	iceL	hate
*(k)iteu'mtilai(k)	(S)		lie, mistake
i'tse	(S)		introduce, enter
(k)itsipex	(S)		vaporize
i.'ts'omyac			love, like
itsoyc'	(S)		lift up high
itsi	(S)		break wind
itspaka	(S)	itspakayile	join
*iwa'nmak	(S)		amuse, divert
	iyi		end, finish
i'yo-te'	yi'te'	*(k)i'yit'il	fight, battle
*(k)ixa'ya	(S)	io't'ne	shake, move
ixa'te	(S)		be angry, quarrel
			do well

K

*(k)ai'yax			drop
(k)ayik	(S)		receive
k'a'ina'		k'a'itena'	play
ka-k'a	k'a.'ka	ka-k'La	sing
(k)ak'a'ye	(S)	(k)ak'a'yile	be inclined to
(e)k'au'a,	(S)	(e)k'a.'ltin'a	agree, (be seated)
k'a.l'a			
k'a'La		k'a.Ltena'	fight, battle
(k)a'lep,		(k)alo'lop (S)	lose, forget
(k)o'lep			
(k)a'mau	(S)	(k)ameytile	be together, join
k'amle'	(S)		peep, peer, squint
k'apk	(S)	kapil	sweep, erase
*(k')arme'			wander, stroll
ka-u	kau'wi	ka'xa-u	sleep
*(k)a'wa	(S)		be lacking
	*(k)auke'		taste, like
*(k)aunop	(S)		finish, end
(k')ē'L			dry up
	k'e.'lo'(p)		tie, bind
k'epoṭ'au		k'epo.ṭ'ilau	follow, pursue

<i>Antoniaño</i>	<i>Miguelcño</i>	<i>Plural</i>	<i>Meaning</i>
ke-sk	k'esk		spy, watch
*(k)etaye'te	(S)		present, deliver, devote
(k)e'yita'	(k)aite	(k)e'yiteL	laugh, shout
k'e'tipek	(S)	k'e'telapek	banish, exile
kī-	kī, ī	kiya-L	go
ki-e	ki-e		resemble, like
k'itipa	(S)	k'ilipa	mareh
k'o'l'	ko'L	ko'la	be hungry
k'o'lik	(S)	k'olitak	guard
k'o-L			lift, arise
k'o'lpax	k'o'lpex		arise, spring up
k'o'k'ol'ce			converse, speak
k'o'nox		ko'nlox, ko'lox	arrive, reach
k'o'mate(k)		ko'mat'elte	buy
k'unip	(S)		desire
(k)uptun	(S)	(k)uptinil	scratch
	*(k')u'tex		eat

L

(ke)la'ye	(S)	(ke)lea'ite	be merciful
*la.ye'	(S)	layine'	move, shake
	lal		eject, throw out
lam	lam	lamhaL	eat
(k)La'		(k)La'pat	break, be broken
(k)La.'t'ne	(k)La'patene	(k)La.'t'tene	swim
la-wa''	la'lua'	la-u-	release, separate, leave
lei	(S)		forsake, abandon, divorce
*(ke)lekema'k	(S)		requite, revenge
(k)LeM'		(k)limit'	fall
li'exai	le'exai'		rain
li-xo'	lale.'xo'	liya'iyax, li-t'xo	throw, cast, hit
lo-L	lo-l	lo.'xLa	burn oneself
loxo, lok'o	loko'xo'		seize, squeeze, grasp
luane	(S)	luanile	know
lu'etee	(S)	lu'eteile	serve
(ke)luk'ua'la	(S)		heed, pursue
*lum	(S)		separate fire

M

ma'ca-L		maltintak (S)	blaze, burn
(k)Ma-i		(k)ma'iyal' (M)	live, possess home
ma-k	mak	ma-tak	give
*(ke)makwoxtel	(S)		sigh, breathe deeply
ma-L	maL	ma'lo-L	fly
male'ntax	male'ntax	maltintak (S)	remember, think
mala-k		malta-k	advise, say
ma'le	(S)		doubt
*(m)a'nketso	(S)		insert, add
ma-t		ma-telau	fill oneself

<i>Antoniaño</i>	<i>Miguclenño</i>	<i>Plural</i>	<i>Meaning</i>
ma-'a	ma'a'u'	ma-tele'	bring, carry, raise
*me			sleep
mene' (S)	me'n'		go to bring
	(t)me' (nak)		go to see
me/s	mi'slip	mest	smell, scent
(a')me't	me't		try, attempt
me.t'au'			feel
*(tam) e'tea			arise, get up
(ke)mi'ttop	(S)		lightning
*mitae	(S)		make
mi'tel-ak		mi'tela-tak'	defeat, beat
mi't'ik	mi't'ik	mi't'lik	run, flee
mie	(S)	milic	celebrate, entertain
		*(i)mo'kLop	drown
molo'x	molo'x	ma'tlox	jump
map	mopke'		grow, increase
mopxi'			be obliged
mo't'u'xo			tighten
moupx	(S)	molopx	strengthen
*mue'teko	(S)		watch, observe
N			
	*(e)næ		dismount
na-'yi'	nai	na-ihyi'	flee, run
	*naye'm		bring (wood)
na-'lo		na'lyeton' (M)	await, wait for
naL	naL		fill oneself, satiate
(ke)na'me	(S)	(ke)namo'ten	heat, warm oneself
nep (S)	nap'		cook
ne'ka'		nixla' (S)	obey
ne'	ne'	ne'wo't (M)	take, seize, bring
(ki)nentile	(S)	(ki)neutilte	change, move
newiox,			
(pe)noyo'xo	(S)	(pe)no'toxo	assent, agree
(ki)ni'ya			take away, rob
(e)no'nanax	no'iyoy'	(e)nuntilentaxo	
		(S)	collect, gather
*nok'i'e			appear
no'le	(S)	no'lele	run
(o)noie	(S)	(o)no'te	dare
		(e)notili'	trade, barter, pay
notx			push away
		*(e)no'ā'asiL	do
(e)notcene'	(S)	(o)notcen'e'te	draw near, communicate
(e)no'xo		(i)naxtilo (S)	come
O			
*(ko)amo	(S)		move oneself
	*(t)o-eko'n'E		be fastened
oi	(S)	oyil	learn, determine, know

<i>Antoniano</i>	<i>Miguelcño</i>	<i>Plural</i>	<i>Meaning</i>
o'ye	(S)		remain, be left
o. ye'		ot'xo'	respond, reply
o'yote	(S)	uyio'tine	move
okot'nap		okot'napelte	dodge
	oko't'o'		kill
ok'wa'te	(S)	ok'wa'tile	flatter, applaud
o'la'le'			be ashamed
olek, k'alok'	(S)	ole'palk	break
o'lo.li'	olole'		play flute
olt'ek			cut, fell
o'maiye'		o'mayau (S)	begin, commence, leave
o'ma	(S)		divide
o'mia'm	(S)		meet
o'miyo'te'		o'kiut'ne'	support oneself, rest
omp	o'mop	omolop	finish, cease, end
(k)o-n		(k)o'neL	escape, leave
onai'ye	(S)		encircle with belt
*(p)onataksa	(S)		send, order
*(k)o'niyi'			be afraid, ashamed
o'nteamaua'te	(S)		believe, suggest
opoi'	opa'u	op'oitenox	enter, insert, throw in
(k)o'potot'na'			boil
(e'k)o.sna'		(e'k)ostena'	whistle
	*(t)otenake'		become, make oneself
(k)otia'	(S)	(k)otilia'	be indisposed
	*otokinek		pound, hammer
o.tatle',	o't'atnox	o'taxlele'	butt, gore, dive
otaxle'			
*(k)o'teo.xna'			drop, fall
(i)ox, (x)ox	(S)		approach
o'xoyo'te'	o'xoyo'ta'p	o'xoiyo'tela'	live, exist
o'xo-ma'		o'xom'tela'	hide
o'xwetel (S)	o'xote'p		whip, beat, punish

P

(p)aye'm	(S)		carry, bear
(p)aiteik	(S)	(p)aiteiltek	visit, communicate
pa.ta, pa.ka		pa'tla, pa'xla	dance
(p)a'lek	(S)		heat, warm
*(p)amñinik	(S)		see
(p)aso'kau			scratch
(p)ats'ok'a'u			
*(p')ea-ko'			chop
*(p)eina'x	(S)		see
(p)ele't'o		(p)e'lextlo	open
		(p)e'me'l	use, select
*penLa.'k'o			hustle
(p)esk'o'na			cook
pesno'xo	pesno'xo'	pesnelo'xo	hear, listen

<i>Antoniaño</i>	<i>Miguelcño</i>	<i>Plural</i>	<i>Meaning</i>
pe'sene		pe'sintle	think
	*(p)eta-uo		seize, grasp
pex	(S)		be born, come out
*(p)exe'ko	(S)		reject, separate
*pi'			be (substantive)
*(p)iematilo'xo	(S)		suffer
*(p)ip̄ta'tiko	(S)		bite, grind
*(p)itea-lta'naxo	(S)		dream
	(p')ocai'		lift, raise
okoleca'	pok'e'lee		advise, notify
	*(p)o-L		toast
(p)o'nek	(S)		insert, introduce
pox	pox	polox	enter, go down
psa'lo			decide, resolve
	*p'te'lo-to		fall on stomach
pxa-i		pxaiyil	pay
S			
sa-		sa-teL	speak
(i)sa'li		sa'le-lte'	hate
		sa'mox	die (many)
saiyene	sa'nene		marry a woman
se		se	be, are (substantive, attributive)
*sekoṭ'ak'			tie, bind
se-			tell, say to
se'ni'		se'ni'	walk
*sitetenop	(S)		arrive at summit
*sole'k	(S)		feel genitals
T			
ta-i		taiyai	stink, smell
tale (S)	ta'lo'	talte	accompany
ta'lxwal		ta'lxwaltenax	work
*tama'nepek			remove, abstract
*tapen			stroke
tawa	(S)	tan'la	remain, delay
*t'e'yo'			be alone
*te'le'			hustle
tepen			pain, hurt
ti.'	ti.'		do
ti'a	(S)	tiila	offend
*tico-		tieto	(not) see, hear, observe
*(e)ti'exalta			play
ti'li	(S)	tiili	dispatch, send
	*ti't'olpet		fight, contest
*ti'teon			refuse, decline
*ti'ixai			like, wish

<i>Antoniaño</i>	<i>Miguclenño</i>	<i>Plural</i>	<i>Meaning</i>
*t'ola'so			exclaim
*tox	(S)		gather
tom'	tum'	to'met	fall
*tom, tum	(S)		agree, assent
tu'pex	(S)	tu'lpex	seent, give good odor
T			
t'a'co		ta'cila (S)	take notice, constrain, press
*tal	(S)		scrub, smooth
*tam	(S)	ta-m	hunt pine nuts
*(k'ot)a'mek'ulentax (S)			lift a fallen object
	*(et)an'		arise, get up
*t'a-penya'			collect, gather
	*(t')a-te		have, be
*(p)t'a'x			pour out
te'	t'e'	tetak	tell, say to
(p)t'e'kax	t'ak'ak'o'	*te'yiteno	shout, acclaim
		(pe)t'a'kha'k	break off, saw off, stab, shoot
(p)t'eka		(p)t'aki	kill
(p)t'etoyo	t'ot'o'iyo'		pound, pulverize
	*(e)t'etepai		shoot, throw, cast
*(t)eni-lak			be worth, valuable
*t'ia'			wish, desire
tia	(S)	tici'la	sigh
*tiemi'	(S)		discharge
*(ke)ti'enop	(S)	(ke)tietinop	gather food
*(p)t'i'yna'pak		t'iitenla'pk	cut one's head off, de- capitate
*(p)t'ika'l			strike, beat
t'inti't	(S)		take, seize
t'iowe	(S)	t'itinowe	be happy
*ti'paxa	(S)		remove oneself
*titspiptup	(S)		fall
*toku'mkó.			continue
t'o'ina'so	t'u'inox		perch, sit above
t'o'ke-lax		t'okeltenax	revive
t'o'loinox		tpoleitina'x (S)	finish, end
t'o'xe-wu			rub, scratch oneself
t'o'x'		p'u'nniko (S)	burn
	t'o'xon	t'o'xo-tén'	snore
*topoile	(S)	topoile	kneel
t'uina'pik		tuinila'pek (S)	saw, be torn up
t'uk'	t'uk'	t'oka'	crash, thunder, smash
(p)t'u'kotna.			bore
TC			
(i)tea'klax	(S)	(i)tea'kiltax	nail, fasten
te'a'uwe'	te'a'u'	te'a'u'ye'	seek, hunt
t'a-u'			

<i>Antonioño</i>	<i>Migueloño</i>	<i>Plural</i>	<i>Meaning</i>
	te'e'lo', te'a'mo'		wrap up, swaddle
te'upk, teakomo	(S)	tea'komel	wash
*tea'wate	(S)		lose senses
*te'e-wa-nuwi'		tee'welte'e (S)	be upheld, thrown
te'ehe'na'			be angry
*tei'pk	(S)		desire, detain
*tenileu	(S)	teukle'u	divide
teutna'x,	(S)		fix, insert, extract
teutnepek			
TS			
ts'a-ts'i			be wet, damp
(pe)tseina'k	(S)		sell
*tsetmiwe'liko	(S)		do
ts'e-n', ts'e'k			see, observe, watch
ts'c-nu'		ts'e'ten (M)	like, enjoy, be happy
tsepex	(S)		give birth, break
(ke)tsiknop	(S)	(ke)tsiktinop	burst, smash
ts'a'tel	ts'ne'tel		be cold
(ke)tsikna	(S)	(ke)tsi'ktina	breathe
tsil	(S)		suffer, pain
~(pe)tsimia'm	(S)		dress
ts'ok'ox		tsa'ktox	frighten, be afraid
ts'o'xwan	ts'axwen'		shrivel, dry
U-W			
wa'xal, o'wahl	wi'le-	wo'xaltenax	kill
*wa'li'			send, dispatch
*(k)walita'tee	(S)		boil vigorously
	*wa'wel		go to bring
wa-t		watil (S)	send
wenx, we'ten,		welnex (S)	return
we-ntx			
wi'pu		wi'tup	give however
	*umtan		permit, give
upk 'ina,	(S)		twist, twine
umk 'ina	(S)		
utneka'lik			beat, strike, thrash
utea-k			lend
*(k)ute 'e'l			halt, stop
X			
(ol)xa', (it)xa	(S)		withstand, bear
xac		ka'eil	sit down, be seated
*(epe)xayit	(S)		hate
		*xai'yal (M)	go
xa-i	(S)	xa'yel	doubt
xa'la, ha'la			use, shoot
xam, xap		xamel	end, finish
(p)xanse		ko'nsele	sell

<i>Antoniano</i>	<i>Miguelño</i>	<i>Plural</i>	<i>Meaning</i>
xa'pek	xa'pko'		dig, excavate, climb
xa'ta	xa'ta	xa'la	weep
*ha'te'			remain
xe'co	xe'e	xeclu (S)	inter, bury
he'la	he'la		await
xo'wia	(S)	xoiolua	breathe, live
*ho'yi'			say
*xoyu'k'	(S)		soften
(h)o'ne-t,			defeat, beat
(k)o'ne-t'			
xot'	xotk		blow
xo't'op		xo't'lop (M)	pass by
xwen	xwe-n	xwene'lax	arrive

ADJECTIVAL STEMS

	(k)ama'eu		sweet
(ke)ama'uk	(S)	(ke)ama'ulik	pious, compassionate
(k)atululna	(S)		straight (road)
(k)a'tea-mp'a'		(k)a'tea-tenapa	mean, fierce, brave
(k)apa'mak	(S)	(k)apa'melnak	simple, benevolent
(k)axa'ntee	(S)		angry, passionate
(k)a'wa	(S)	(k)a'ula	robust, healthy
ca'xa'NE		(k)ca'xa'tena'	blue
	ce'ta		scabby
(kn)cu'k	su'ko		deaf
(e)emie	(S)		poor
eo'wut'	eauwat	eo'watLax	black
(k)e'sene'			bad
ecxo-ni'	icxo-ne	e'exo-tene'	poor, thin, feeble
(k)esiyu'k'		(k)esiyuk'lax	sweet
(t)emitcu'k'o	(S)		holey
(k)esio'hol			salty
(k)esna''			true
(k)eteq'.'	(k)ete'q'.'	(k)eteq'.'atén	large, great
(k)etpenik	(S)	(k)etpenilek	stony, rough
(k)icxo'a	(S)		covered
(k)i'le	(S)		lazy
(k)imoupxa	(S)	(k)imoupxela	valiant
(k)i'notopa'	(S)		different, distinct
(k')io'x			high (above water)
(k)ita'lna			first quarter (moon)
(k)iteka'ten	te'ka'ten'	(k)iteka'te-lax	red
(k)itetse'nxa			expert, crafty
(k)itemila	(S)	(k)itemi'lita	transparent
(k)itspilil	(S)		painted
(k)i'teowok'a	(S)	(k)i'teowota	rich
(k)itsto'line	(S)	(k)itsto'ltine	twisted
(k)i'wun			savory, tasty

<i>Antoniaño</i>	<i>Miguclenño</i>	<i>Plural</i>	<i>Meaning</i>
k'a'ye			disobedient
k'ak'auxa	(S)		coagulated
k'atapxe'xe'			heavy (rain)
k'nap	k'nap		ripe
k'ockwe'top	(S)	kockwe'tilop	thin
k'wa'ka		k'wa-'kelt'a	long, tall
(k)la'k'mak'			brave, valiant
laknlem			lower
le-ma'lem			upper
lama'yu	lamai		right
	la'pai		left
(k)Le' 'tax		(k)Le' 'talax	sharp
letapyele			last quarter (moon)
(ke)lu'tea	(S)	(ke)lutea'aten	dumb
(k)loi			lame, crippled
ma't' aL	ma't' a-L	(k')ma'talta	white
(k')me't' o"	emo't		heavy, deep (snow)
muṗ	(S)		large (child)
ok'elo	o'kel		left
(k)osweak	(S)		agile
	(t)oti'pe'x		rapid
(k)omux	(S)		elder
(ke)otea'	(S)	(ke)otee'la	benevolent, pious
(k)owa'te	(S)		difficult
(k')pat'		(k')pa't' Lax	hard
pi'uxa	(S)		good, successful (thing)
sa-x	(S)	sakehe'L	good (person)
sa'xwelyo'x			smooth-edged
	sep		right
ski'ntui'	sku'nt' ui'		small, thin, lesser
ski'tana	sko'tan		small
	skusua		half (moon)
(e)sluteya'mo	(S)	(e)sluteya'moten	short, bent (with age)
smat	smat	smahate'L	beautiful
(k')so'le'			sad
	spukita		upper
stiyo' 'owan		stiyo' wanlax	pretty, graceful
swa'nan	swa'nan		lonesome
(k)te'k'a	stikwan		young, new
	ta'kata		new (moon)
	te'le'p ^{MI}		full
	tele'sa		lower
telwane'			strong, fierce
	timoen		lame
tinkxa		ti'nelkxa	dear, beloved
t'ise			strong, able
tolep			sad
toyo'weto	(S)		wise
	tuun'iko		red-winged
ta'to	(S)	tatotne'l	foreign, strange
t'a'wut	t' xauwat		yellow
t'i'kilele'		t'i'kelilte'	round

<i>Antoniaño</i>	<i>Miguclño</i>	<i>Plural</i>	<i>Meaning</i>
ṭixa'yo	(S)	ṭixa'yout	ordinary
(kom)ṭek'	(S)	(kom)ṭaka'i	(in)corrupt
(kom)ṭeko'lnox	(S)	(kom)ṭeko'ltinox	(un)penetrated
(k')ṭ'jelel		(k')ṭ'je'le.lta	striped
	ṭukilnu		full (moon)
	ṭ'u'moi.ne'		docked
teamauk	(S)	*te'a'baliltena'	thin, famished
te'a'pa-i-yine		te'a'paiyitine'	haughty
(k')te'a'p			wide
teeheh(mak)		tee'henmilak	tired
e-li'to	(S)		irritable, mean
	ts'a.'lankwat		equal
ts'ep	ts'ep	ts'e'pax	clear (sky)
(k')ts'e'pen'		ts'e'peyitini	good, well
(k')ts'eteL			small
	ts'ka'te.laxka."		cold
(k)u'suhlna'		(k)esulutina'	naked
	(k)umtiea'		straight (tree)
(k)u'wate			brown
(k)wi'le'		(k)wi'lte'	very bad
	wi'lapné		straight
(k)wi'teen'			right
		(k')wo'slop'	smoky
(e)xai'	xai		strong, numerous
	xilap'		brave
xu-mq."	ekomó	xomoxe'L	valiant, brave
	xu'tia, ku'tia		ferocious, bad
	yu'wan		sick, ill
			sweet

VARIOUS STEMS

DEMONSTRATIVE ARTICLES

*aswai	*aswa		this, these
keca''	k'α'lau'		how many?
kipuṭa		kipu'ṭila	last
(k)ī.'sile'	(k)ī.'sili'p		all, every
mas		ṭa.ene'L	somebody, someone
mē.yo''			same
na	na, no'na		this, these
pe	he, we		the, that, that which, those
pa	ho		that, those
*se.'t'kam			each
tama'ya		ta'maila	next
t'ya			each
to'y'o'we	(S)	teyo'o'we	alone, sole
ṭa'erake',		ṭace'Ltake	some, something
ṭa' rake			
xai'ya'			many

TEMPORAL ADVERBS

heL	(proclitic)	soon, presently, after
il-a, ilta	(S)	soon, afterwards
i-n	(enclitic)	yet, still
ke'tka	(S)	already
kisa', kwits	(S)	always
kī.'ya-t'e'.		always
kī.'yax		always will
(k)Lu.'wa'	(proclitic)	much, long
ko'kai	(S)	yet
lō-lo', lo'	(enclitic)	formerly
ma-kā.''	(Mig., enclitic)	now
me'cak		continually
mō-yo'.'	(proclitic)	continually
na-ta.'	(enclitic)	now
*noce'.		soon, almost
nomimo	(S., proclitic)	before
nopaha'		day before yesterday
noko'nxa'		yesterday
noñe'wa		yesterday
no-nō'.non, no'	(enclitic)	soon, some time, now
tana'	(Mig., enclitic)	now
taha', ta.	(enclitic)	now
tel.i'n	(enclitic)	while, during
tats', rats'a	(proclitic)	always, continually
t'ikisna''		continually
ʔupa'ha		day after tomorrow
ʔume', rume'	(enclitic)	then, following
t'uxwe'nto		presently, soon
ten	(S)	in the beginning

LOCATIVE ADVERBS

General

<i>Antoniaño</i>	<i>Miguclēño</i>	<i>Meaning</i>
kē'n		indefinite place, there
	*hu	there, <i>ahí</i>
ma'ye	(S)	there, <i>por allá</i>
nepa', nepe'	(S)	there, <i>allí, allá</i>
na'ye, ʔonai'	(S)	here, <i>aquí</i>
ra'ke'		somewhere
pa		there, here
t'iyax		there, <i>ahí</i>
wa'	xa	there, distant
wī		here, <i>aquí, acá</i>

Particular

k'e-li'exo	beneath	(ixex', foot)
kū'he'	down	
la'ko	lak'	down, below

<i>Antoniaño</i>	<i>Miguelño</i>	<i>Meaning</i>	
le-mo''	lem	over, on, above	
p'an		beyond	(<i>noun</i> , other side?)
pepoxo	(S)	beneath	
sk'a-m		near, beside	
t'ol		near	
tewa'ko		beside, near	(<i>noun</i> side?)
tewai'yu		at side of	(<i>noun</i> side?)
texapi'exo		at the edge of	(<i>noun</i> edge?)
teyoxana'y'u		at the surface of	(<i>noun</i> surface?)
tika'ko		above, over, at top	(ta'ak, head)
titeo'mo		behind	(ti'tcom', back)
to'ke		in, within	
to'meJo		at the end of, edge	(<i>noun</i> end?)
teex		outside, out	

DESCRIPTIVE ADVERBS

letano	half
kai'yik'	slowly
ka'xwen (Mig.)	much
k'o'lop	very, much, enough
koyu'p	easily
k'sa	more, very, entirely, truly, well
misa'tik	strongly
pe'ptelop'	too much
pe'nle	swiftly
skomo'	slightly
tewai'	half, partly
tikts'e'p'ksa	uselessly
tutisi	thus
tee'e	truly
teitso	only, solely

NUMERALS⁵¹

<i>Antoniaño</i>	<i>Miguelño</i>	<i>Meaning</i>
t'ol	t'o'ixyu	1
ka'k'eu	xa'kie	2
kla'pai	la'pai	3
k'i'ca'	k'i'ca'	4
o'lt'au	olta'to	5
paia'nel	paya'teL	6
te'	t'e'p	7
caa'nel	ca't'eL	8
te'tet'o'e	te'tet'o'paL	9
t'o'e	t'o'paL	10
t'o'etaxt'ol		11
la'paikca'		12
la'paikcaxt'ol		13
woe'co		14
la'paiolt'au		15
k'pee		16

⁵¹ Cf. discussion on "Numerical System" in *Ethnology*, p. 134.

CONJUNCTIONS

<i>Antonioño</i>	<i>Miguelcño</i>	<i>Meaning</i>
	he'u'wa't̚	therefore
i-n, yoin		more than (comparison)
kas	kas	but, only
kasi'no, maxa'ya	(S)	if not
ki-e	ki-e	like, resembling
ki'ri, keṭi'		because
me'na'ko	mī'yo'k	why? ah! because
peti'yo	(S)	like, as
te'reṭe, tere		therefore
ṭayopa	(S)	although
ṭka-	(S)	in case
ṭi	(S)	also
ṭam, ram, am		then, next
ṭan, ran, an	ṭan	and, but
ṭana'i-ṭ		although
tax	ṭa'xo	and
uska''		or

INTERJECTIONS

a''imya''	go ahead!
ai'	all right!
'a. ⁿ , ha. ⁿ	yes!
ha'kse	no!
ko'tisen (Mig.)	be careful!
ka-, koa'	come on!
ke'ra', ka'ra'	no!
me'mten	now then!
mai	come!
no'	good!
yo'	now! he!
yaha	hurrah!

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EDWARD WINSLOW GIFFORD

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CLANS AND MOIETIES IN SOUTHERN
CALIFORNIA

BY
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INTRODUCTORY NOTE

In December, 1916, and January, 1917, a five weeks' trip was made to southern California for the purpose of studying the kinship systems of various Yuman and Shoshonean groups. The preliminary data concerning social organization presented in the following pages were secured at that time. The data on Shoshonean social organization are of particular interest as they make clear that the southern California Shoshoneans form a connecting link between the totemic group in the north, consisting of the Miwok, northern Yokuts, and Mono,¹ and the totemic group in the south, formed by the Yuman and Piman tribes.

Acknowledgment is due Dr. A. L. Kroeber for the use of his unpublished data on Mohave and Papago clans.

¹ See E. W. Gifford, *Dichotomous Social Organization in South Central California*, Univ. Calif. Publ. Am. Arch. Ethn., xi, 291-296, 1916.

YUMAN CLANS

The clans of the Mohave, Yuma, Cocopa, Kohnana, Maricopa, and Kamia² possess several features in common: paternal descent, exogamy, and clan names, of totemic connotation, for females only. Dr. Kroeber has stated the case for the Mohave as follows:

Certain men, and all their ancestors and descendants in the male line, have only one name for all their female relatives. Thus, if the female name hereditary in my family be Maha, my father's sister, my own sisters, my daughters (no matter how great their number), and my son's daughters, will all be called Maha. There are about twenty such women's names, or virtual gentes, among the Mohave. None of these names seems to have any signification. But according to the myths of the tribe, certain numbers of men originally had, or were given, such names as Sun, Moon, Tobacco, Fire, Cloud, Coyote, Deer, Wind, Beaver, Owl, and others, which correspond exactly to totemic clan names; then these men were instructed by Mastambo, the chief mythological being, to call all their daughters and female descendants in the male line by certain names corresponding to these clan names. Thus the male ancestors of all the women who at present bear the name Hipa, are believed to have been originally named Coyote. It is also said that all those with one name formerly lived in one area, and were all considered related. This, however, is not the case now, nor does it seem to have been so within recent historic times. It should also be added that many members of the tribe are not aware of the connection between the present women's names and the totemic names of the myth.³

The Northern and Southern Diegueño lack totemic clans, although they possess groups which may be considered as non-totemic, localized clans, as will be pointed out later. The Diegueño, particularly the Northern, were long under the control of the Franciscan missionaries, many being taken to the mission at San Diego. The Colorado River tribes were not subject to mission influence and doubtless to-day present a more complete picture of their aboriginal culture than do the Diegueño.

COLORADO RIVER TRIBES

Tables 1 and 2 list the clans of the Mohave, Yuma,⁴ Cocopa, Kohnana, Maricopa, and Kamia, first by totemic references, second

² By this term is meant the so-called Yuma Diegueño, closely related in dialect to the Southern Diegueño, who are agricultural people dwelling on the Colorado River just below the southern frontier of California. These people are bordered on the north by the Yuma, with whom they are reputed to have allied themselves in war against their southern neighbors, the Cocopa, as well as against the Maricopa. The Cocopa call the Kamia, Wasmisxa; the Yuma call them at present Witeankamiya, probably a translation of English "Yuma Diegueño."

³ Preliminary Sketch of the Mohave Indians, *Am. Anthr.*, n. s., iv, 278, 1902.

⁴ I am indebted to Mr. L. L. Odle, Superintendent of the Yuma Indian Reservation, for the privilege of inspecting the Agency records in determining the existing clans upon the reservation. This inspection yielded fourteen, represented by the following women's names: Hävteats, Alymos, Hipa, Liots, Mave, Meta, Wahas, Kwieku, Sikuma, Sinykwai, Cikupas, Sikus, Teia, Waksi.

by women's names. All of the Mohave women's names were obtained by Dr. A. L. Kroeber⁵ except the name Kwini⁶ta, which is from Mr. E. S. Curtis' list.⁶ This list, though not so lengthy as Dr. Kroeber's, agrees with his throughout. The Koluana⁷ and Maricopa names are entirely from Mr. Curtis' work. The Yuma list is a compound of Mr. J. P. Harrington's and my own, with Mr. Harrington's orthography⁸ slightly altered. The Cocopa and Kamia are entirely mine.

Table 2 compares the names for women employed by the clans of the Mohave, Yuma, Cocopa, Koluana, Maricopa, and Kamia. Considering the identity of the institution in these several tribes, it is surprising how few of the names are held in common by two or more of the tribes. The name with the totemic connotation of "dove" or "pigeon" seems to be widest spread, Yuma, Cocopa, Koluana, and Kamia using it. The Cocopa word is Sakuma, which the other three render as Sikama or Sikuma. The name Hipa, connoting "coyote," is used by the Mohave, Yuma, and Maricopa. The stem connoting "rattlesnake" is shared by Yuma, Koluana, and Cocopa. The word Halpot or Halypota is shared by Mohave, Yuma, and Koluana, although with varying connotations. Aside from these four instances no name is common to more than two tribes, and comparatively few are even shared by two. Table 3 abstracts these instances from table 2 and presents them in more concise form, first listing the names of women and then the corresponding totemic references. In table 1 a solid line (—) indicates the occurrence of the totemic reference, but the absence of the woman's clan name. In table 2 a solid line indicates the occurrence of the woman's clan name, but the absence of the totemic reference. In both tables 1 and 2 a dotted line indicates non-occurrence of the name listed in the left-hand column.

⁵ Unpublished material. A list of fourteen clans has been published by Captain John G. Bourke in his *Cosmogony and Theogony of the Mojave Indians* (Jour. Am. Folk-Lore, II, 189, 181, 1889). The list agrees with Dr. Kroeber's throughout, except that the connotations of certain of the terms are different. In Captain Bourke's list Maha is assigned to caterpillar, Kata to "mesquite" as well as tobacco, and Masipa to coyote instead of quail. With regard to the name Masipa, which is no. 12 of his list and which connotes the coyote, Captain Bourke says: "No. 12 was originally a band of Maricopas that came to live with the Mojaves but have always remained as a separate clan."

⁶ The North American Indian (Cambridge, Univ. Press, 1908), II, 113. The orthography of Mr. Curtis' lists has been slightly modified to correspond with that employed in this paper.

⁷ Mentioned by Mr. Curtis as "Maricopa from the Cocopa." Dr. Kroeber considers that these are probably clans of the refugee Koluana or Halehi⁸oma.

⁸ A Yuma Account of Origins, Jour. Am. Folk-Lore, XXI, 344, 345, 1908. The following are listed: Navtsáts, Hipa, U⁹ats, Maav⁹ Ciqupás, Met'a, Almos, Sin⁹kwál, Estamadhún, Kwiekú, Xal⁹pot, Xuké.

TABLE 1

TOTEMIC REFERENCE	CLAN NAME OF WOMAN					
	MOHAVE	YUMA	COCOPIA	KOHCANA	MARICOPA	KAMIA
Sun	Nyo'iltea	_____	_____	_____	Liate	_____
Fire	Nyo'iltea	_____	_____	_____	Liate	_____
Moon	Hoalya	_____	_____	_____	_____	_____
Wind	Mathateva	_____	_____	_____	_____	_____
Cloud	Owite	_____	_____	_____	_____	_____
Rain cloud	_____	Liots	Kwiye	_____	_____	_____
"Colorado River"	_____	_____	Kwas	_____	_____	_____
Salt	_____	_____	Sikus	_____	_____	_____
Sand	_____	_____	_____	_____	Ksila	_____
Hard ground	_____	Waksi	_____	_____	_____	_____
Deer	Nyo'iltea	Alymos	Niu	Kwinis	Kwaku	_____
Deer-hide	_____	Sinykwal	_____	_____	_____	_____
Coyote	Hipa	Hipa	Sikus	_____	Hipa	Kunyah
Coyote	Masipa	_____	_____	_____	_____	_____
Fox	_____	Hipa	_____	_____	_____	Kunyah
Mountain sheep	Moha	_____	_____	_____	_____	_____
Beaver	Siulya	Wahas	Kasmus	_____	_____	_____
Wood rat	Malyikha	_____	_____	_____	_____	_____
Wild cat	_____	_____	Nimi	_____	_____	_____
"Any yellow animal"	_____	_____	_____	Kwutkil	_____	_____
Owl	Kutkilya	_____	_____	_____	_____	_____
Screech owl	Moθcha	_____	_____	_____	_____	_____
"A bird"	Moθcha	_____	_____	_____	_____	_____
Eagle	Nyo'iltea	Sinykwal	_____	_____	_____	_____
Quail	Masipa	_____	_____	_____	_____	_____
Buzzard	_____	Liots	Sakuma	_____	Liate	Liots
Buzzard	_____	_____	_____	_____	Pakit	_____
"Dove"	_____	Sikuma	Sakuma	_____	_____	Sikuma
"Pigeon"	_____	_____	_____	Sikama	Kimiθi	_____
"A bird"	Maha	_____	_____	_____	_____	_____
Roadrunner	_____	Meta	_____	_____	_____	_____
Nighthawk	_____	Teja	Uru	_____	_____	_____
Rattlesnake	_____	Mave	Smawi'	Mave	_____	_____
Frog	Halypota	Häyteats	Kapsas	_____	_____	_____
Humammana beetle	Nyo'iltea	_____	_____	_____	_____	_____
"An insect"	_____	Estamaðun	_____	_____	_____	_____
Caterpillar	Maha	_____	_____	_____	_____	_____
Caterpillar (?)	Nyikha	_____	_____	_____	_____	_____
Red ant	_____	Cikupas	_____	Sinikwus	_____	_____
Grasshopper (?)	_____	Kwicku	_____	_____	_____	_____
Tobacco	Kata	_____	_____	_____	_____	_____
Tobacco	Vahaða	_____	_____	_____	_____	_____
Mesquite bean	Vimaka	Alymos	_____	Salal	Namitute	_____
Mesquite serew	Musa	_____	_____	_____	_____	Kalsmus
"Mescal," yucca	Tilya	_____	_____	_____	_____	_____
"Mescal"	Kata	_____	_____	_____	_____	_____
Okatilla cactus	Kumaðiya	_____	_____	_____	Kimiθi	_____
Prickly-pear cactus	Kwiniθa	_____	_____	_____	_____	_____
Cholla cactus	_____	_____	_____	_____	Hipa	_____
White corn	_____	_____	_____	_____	Häyteate	_____
Corn	Teatea	_____	_____	_____	_____	_____
Food	Teatea	_____	_____	_____	_____	_____
Agricultural food	_____	Häyteats	_____	_____	_____	_____
Sedge	_____	_____	_____	Hutpas	_____	_____
Soaked willow bark	_____	Kwicku	_____	_____	_____	_____
Bark	_____	_____	Kuteal	_____	_____	_____
"A bush"	_____	_____	_____	Halpot	_____	_____
"Already done"	_____	Halypot	_____	_____	_____	_____
"Pima"	_____	Liots	_____	_____	_____	_____

WOMAN'S NAME

TABLE 2
TOTEMIC REFERENCE

	MONAVE	YUMA	COCOPA	KOMASA	MECUCOPA	KAMIA
N'yo illeca	Sun	.....	.....	.....	.....	.....
N'yo illeca	Fire	.....	.....	.....	.....	.....
N'yo illeca	Deer	.....	.....	.....	.....	.....
N'yo illeca	Eagle	.....	.....	.....	.....	.....
N'yo illeca	Boatle	.....	.....	.....	.....	.....
Illoalya	Moon	.....	.....	.....	.....	.....
Mathateva	Wind	.....	.....	.....	.....	.....
Owite	Cloud	.....	.....	.....	.....	.....
Hipa	Coyote	.....	.....	.....	Coyote	.....
Hipa	Fox	.....	.....	.....	Cholla cactus	.....
Moba	Mountain sheep	.....	.....	.....	.....	.....
Sul'ya	Beaver	.....	.....	.....	.....	.....
Mal'yukha	Wood rat	.....	.....	.....	.....	.....
Kurki'ya	Owl	.....	.....	.....	.....	.....
Kwut'kil	.....	.....	.....	.....	.....	.....
Mo'ochu	Screech owl	.....	.....	.....	.....	.....
Mo'ochu	"A bird"	.....	.....	.....	.....	.....
Masipa	Quail	.....	.....	.....	.....	.....
Masipa	Coyote	.....	.....	.....	.....	.....
Halypota	Frog	.....	.....	.....	.....	.....
Halypot	.....	"Already done"	.....	.....	.....	.....
Ilalp'ot	.....	.....	.....	.....	.....	.....
Nyik'la	Caterpillar (?)	.....	.....	.....	.....	.....
Kata	Tolaveco	.....	.....	.....	.....	.....
Kata	"Mesquit"	.....	.....	.....	.....	.....
Yahaba	Tolaveco	.....	.....	.....	.....	.....
Yimaka	Mesquite bean	.....	.....	.....	.....	.....
Tiya	"Mesquit," yucca	.....	.....	.....	.....	.....
Kuna'agiya	Okarilla cactus	.....	.....	.....	.....	.....
Kimi'li	.....	.....	.....	.....	.....	.....
Kimi'li	.....	.....	.....	.....	.....	.....
Kwint'ha	Prickly-pear cactus	.....	.....	.....	Roadrunner Okarilla cactus	.....

TABLE 2—(Continued)

WOMAN'S NAME	TOTEMIC REFERENCE				
	MOHAVE	YUMA	COCOPIA	KOCHANA	MARGOPIA
Waksi	Hard ground	.....	.....	.....
Alymos	Deer	.....	.....	.....
Alymos	Mesquite bean	.....	.....	.....
Musa	Mesquite screw	.....	.....	.....	.....
Kalsmus	Beaver	.....	Screw bean
Kasmus	Deer	.....	.....	.....
Sinykwal	Eagle	.....	.....	.....
Sinykwal	Red ant	.....
Sinakwas	Red ant	.....	.....	.....
Sinikwas	Deer
Chupais	Beaver	.....	.....	.....
Kwaku	Buzzard	.....	.....	Buzzard
Wasas	"Pima"	.....	.....	.....
Liofs	Rain cloud	.....	.....	.....
Liofs	Buzzard
Liate	Sun
Liate	Fire
Liate	"Dove"	.....	"Pigeon"	"Dove"
Sikuma
Sikama	"A bird"	.....	.....	.....	.....
Maba	Caterpillar	.....	"Dove"	.....	.....
Maba	Buzzard	.....	.....
Sakuma	Roadrunner	.....	.....	.....
Sakuma	Nighthawk	.....	.....	.....
Meta	Rattlesnake	.....	.....	.....
Teia	Rattlesnake	Rattlesnake	.....
Maye	Frog	.....	.....	.....
Snawi	Agricultural food	.....	.....	.....
Havteats	White corn
Havteats
Havteate
Teatea	Corn	.....	.....	.....	.....
Teatea	Food	.....	.....	.....	.....

TABLE 2—(Concluded)

WOMAN'S NAME	TOTEMIC REFERENCE				
	MORAVE	YUMA	COCOPA	KOHUANA	MARI'OPA
Estamādm	"An insect"	.....	.....	KAMIA
Kwicku	Grasshopper (?)	.....	.....	.....
Kwicku	Soaked willow bark	.....	.....	.....
Kwiye	Rain cloud	.....	.....
Kwis	"Colorado River"	.....	.....
Sikus	Salt	.....	.....
Sikus	Coyote	.....	.....
Sikus	<i>izha</i>	.....	.....
Sikus	<i>huzup</i>	.....	.....
Nin	Deer	.....	.....
Nimi	Wildcat	.....	.....
Uru	Nighthawk	.....	.....
Kapsas	Frog	.....	.....
Kutad	Bark	.....	.....
Watenwal	<i>saltee</i>	.....	.....
Kwinis	Deer	.....
Sdal	Mesquite bean	.....
Itutpas	Sedge	.....
Ksila	Sand
Pakit	Buzzard
Namitute	Mesquite bean
Kunyah
Kunyah
Witax	Coyote
Ikamayah	Fox

TABLE 3
NAMES OF WOMEN COMMON TO TWO OR MORE TRIBES

MOHAVE	YUMA	COCOPA	KODUANA	MARGUFA	KAMIA
1. Hipa	Hipa	.....	.....	Hipa	.....
2. Kutkilya	.....	.....	Kwutkil	.....	.....
3. Halypota	Halypot	.....	Halpot	.....	.....
4.	Chupas	.....	Shukwas	.....	Shukwas
5.	Llots	.....	.....	Liate	Llots
6. Maha	Sikuma	Sakuma	Sikama	.....	Sikuma
7.	Mave	Smiawi	Mave	.....	.....
8. Teateca	Havteats	.....	.....	Havteate	.....
9. Musa	Alynos	Kasimus	.....	.....	Kalsimus
10. Kumadiya	.....	.....	.....	Kimoti	.....
11. Kwiniha	.....	.....	.....	.....	.....
12.	Sikus	.....	.....	.....	.....
13.	Waksi	.....	.....	.....	Waksi
1. Coyote	Coyote, fox	.....	.....	Coyote, cholla cactus	.....
2. Owl	.....	.....	.....	.....	.....
3. Frog	.....	.....	.....	.....	.....
4.	“Already done”	.....	.....	.....	.....
5.	Red ant	.....	.....	.....	.....
6. Species of bird	Buzzard, “Pima”	.....	.....	Buzzard, sun	Buzzard
7.	“Dove”	.....	.....	.....	“Dove”
8. Corn, food	Rattlesnake	.....	.....	.....	.....
9. Mesquite screw	Frog, agricultural food	.....	.....	White corn	.....
10. Okatilla cactus	Deer, mesquite bean	Beaver	.....	Okatilla cactus, road runner	Screw bean
11. Prickly pear cactus	.....	.....	.....	.....	.....
12. ....	.....	.....	.....	.....	.....
13.	Hard ground	Salt	.....	.....	.....

Dr. Kroeber gives two examples of names of women changed after the death of a child: Nyo'iltea becomes Nyotea, Siulya becomes Kusuvilya.

The Yuma as well as the Cocopa have a special name for the old women of each clan. The word for old woman (akoi in Yuma, wakui in Cocopa) is preposed to the ordinary totemic name for the woman, to the name of the totem, or to yet another name which is neither that of the woman nor of the totem. Examples of all three types are to be found in the ensuing table (4) in numbers 13, 3, and 6, respectively. In the Yuma Agency records the youngest woman to whom the term akoi (old woman) was applied was fifty-four years of age. The majority of women with this term were in the neighborhood of eighty years. Both Yuma and Cocopa informants said that this term was applied when gray hair began to appear.

Mr. Harrington mentions two terms for old women. On page 337 of his "A Yuma Account of Origins," is the following: "When the earth was dry again, Kwikumut created just one person more, Akiwite'án ('Yuma-Old-Woman')."⁹ She belonged to the Xavtsats nation." In footnote 2 on page 345, Mr. Harrington writes as follows concerning the mesquite-bean clan, the women of which are called Al'amos: "An old woman of this nation bears the additional name Akiitehamal ('Old-Woman-Something-White'), because the mesquite beans referred to by Kumastamxo [the name-giver] were ripe and white." I have included this name in table 4 as number 4.

TABLE 4

NAMES OF OLD WOMEN, TOGETHER WITH USUAL CLAN NAMES OF WOMEN AND TOTEMIC REFERENCES

NAME OF WOMAN	NAME OF OLD WOMAN
<i>Yuma</i>	
1. Hipa (coyote = hatelwe)	Akoixipa
2. Mave (rattlesnake = avi)	Akoimavi'
3. Al'amos (deer = akwak)	Akoiyikwak
4. Al'amos (mesquite bean = a'is)	Akoiitehamal
5. Hävteats	Akoitulil
6. Hävteats (frog = hani)	Akoiwitean
7. Liots ("Pima" = hatba)	Akoihetpa
8. Meta (roadrunner = talypo)	Akoimeta
9. Cikupas (red ant = teamañul, ikwis)	Akoisikupas
10. Kwieku	Akoikwisaku
11. Sinykwäl	Akoisiuykwäl
12. Wahas (beaver = apen)	Akoivahas
13. Sikuma (dove = xuskiva)	Akoisikuma
14. Teia (nighthawk = uru)	Akoiuru
15. Waksi	Akoiwaksi

⁹ See no. 6, table 4.

TABLE 4—(Continued)

<i>Cocopa</i>	
16. Sakuma (buzzard = panapalim)	Wakuipanapala
17. Sakuma (dove = ilaku)	Wakuipanapala
18. Uru (nighthawk = uru)	Wakuispi
19. Kasmus (beaver = miskwisma)	Wakuimiskwisma
20. Wateuwal (———— selatee)	Wakuteilatee
21. Nimi (wild cat = sahulz)	Wakushulz
22. Sikus (salt = isix)	Wakusix
23. Sikus (———— ixha)	Wakuixha
24. Sikus (———— hüsup)	Wakuhüsup
25. Sikus (coyote = wihas) ¹⁰	Wakuwihas
26. Kuteal (bark = witeispax)	Wakumitispaxbai
27. Smawi' (rattlesnake = mawi')	Wakusmawi
28. Kwas (Colorado River = kanwilapa)	Waknauwilapa
29. Kapsas (frog = hanya')	Wakuiteayil
30. Niu (deer = kwak)	Wakuniu'
31. Kwiye (rain cloud = ihwi)	Wakuimas

Certain of the names of women in the preceding lists, the Yuma themselves attribute to other dialects. Sikus is said to be the name used by a Kamia clan, and it certainly is a common Cocopa name.

The totemic references which I obtained for certain names differ from those secured by Mr. Harrington. For Sinykwal, he lists deer-bide. One of my informants mentioned the eagle for this name. For Alymos, Mr. Harrington obtained the connotation mesquite bean, while I obtained both deer and mesquite bean. One informant stated that Estamaðum was equivalent to Hävteats. The connotation of Kwieku was given as "grasshopper or other insect"; Mr. Harrington gives it as "soaked willow bark." The name Xakei was not obtained, but the name Waksi was. Captain George and Henry Ward, two Indians who went over the Agency records with me, seemed inclined to identify Waksi with Xakei. In the records there were no individuals attributed to Xakei, but many to Waksi.

The ensuing table 5 lists the Mohave, Yuma, and Cocopa totemic references so far as they have been obtained. A comparison of this table with table 1, both being arranged in the same order, is all that is necessary to make clear the fact that totemic references and names of women have little in common. There is but one instance in which the two are identical, namely, in the Cocopa nighthawk clan, Uru being both the totemic reference and the name for a woman of the clan.

¹⁰ Mr. Harrington gives xattepa as the Cocopa word for coyote (Jour. Am. Folk-Lore, xxi, 345, footnote 1, 1908).

TABLE 5

NATIVE NAMES OF OBJECTS REFERRED TO IN WOMEN'S CLAN NAMES

	MOHAVE	YUMA	COCOPA
Sun	anya	.....	.....
Fire	a'auva	.....	.....
Moon	haly'a	.....	.....
Wind	matha	.....	.....
Cloud	ikwe	.....	.....
Rain cloud	.....	akwi	ihwi
"Colorado River"	.....	.....	kauwilapa
Deer	akwaka	akwak	kwak
Coyote	hukwara	hatelwe'	wihaw
Fox	.....	hat'elwe'	.....
Mountain sheep	ammo	.....	.....
Beaver	apena	apen	miskwisma
Wood rat	amalyka	.....	.....
Wild cat	.....	nime	sahulz
Owl	ökupita	.....	.....
Screech owl	tulauka	.....	.....
Species of bird	amatakunyevi	.....	.....
Eagle	aspa	.....	.....
Quail	ahuna	.....	.....
Buzzard	.....	ase	panapadim
Dove	sakumaha (?)	xuskiva	ilaku
Roadrunner	.....	talypo	.....
Nighthawk	.....	uru	uru
Rattlesnake	.....	ave	mawi'
Frog	hauye	hani	hanya'
Species of beetle	humahnana	.....	.....
Caterpillar (?)	ame	.....	.....
Red ant	.....	teamadul, ikwis	.....
Tobacco	auva	.....	.....
Mesquite bean	aya	.....	.....
Mesquite screw	a'isa	a'is	.....
"Mescal," yucca	vaðilya	.....	.....
Okatilla cactus	a'ikumaði	.....	.....
Corn	taðitea	taðite	.....
Food	kuhuteaten	.....	.....
Bark	.....	.....	witeispax
"Pima"	.....	hat'ba	.....

(= Maricopa)

Dr. Kroeber suggests that the clan names of women are perhaps archaic Yuman words. Certain evidence in the preceding lists would seem to lend color to this hypothesis, although the evidence might also be interpreted as indicating a borrowing of names. The Cocopa name Sakuma, which is applied to women of the buzzard and dove totems, is found in Mohave in the term sakumaha, a species of bird, possibly the dove. The Cocopa name Nimi, which is applied to women of the

wild cat clan, is the Diegueño word for wild cat. I repeated a number of the Yuma clan names of women to a Diegueño informant at Campo, San Diego County, California, with the idea that if they were archaic Yuman words they might have continued in every day use among Yuman peoples other than the Yuma. The Diegueño informant also spoke Papago and remarked that he thought the Yuma name Liots was perhaps Papago sunt, meaning "to break out with disease on the pubes." Although there are some cases of folk etymologies in it, the following list of alleged meanings is presented for what it is worth.

YUMA NAME	PROBABLE DIEGUENO EQUIVALENT	MEANING
Hipa	hiba	man
Alymos	limis	pubic hair
Hävtcats	havtcats	uterus
Meta	.....	ground
Wahus	.....	wet house
Sikuma	sikuma	carrying lunch
Sikus	sikus	white fish
Teia	teia	species of fish
Waksi	waksi	hard ground

The list of sixteen Cocopa clans was given me by Frank Tehana and Stump Barley, a shaman. The Cocopa data were obtained from these men at Somerton, Arizona.

Both of my informants belong to the buzzard (panapalim) clan, yet their personal names do not refer to that bird. Stump Barley's name is Kwalkmuyesx, which is said to mean something like "old-woman-mouldy-bread." Frank Tehana's name is Isbaxkwisain, meaning "Yuma eagle" (isbax, eagle; kwisain, Yuma). Each of these men said that he was so named in infancy by his father.

Although Cocopa clans are exogamous, there are no favored clans in marriage. There is no clan endogamy, for members of a clan consider themselves to be blood relatives. There are said to be no clan paints or tattoos and no clan chiefs. The Cocopa chieftain (kwiswap) was selected by the people, a son succeeding his father only in case the people considered him to have sufficient ability. There were no chieftainesses.

The totems of the Cocopa clans are said to have been assigned to the clans by the god Maskwaiyek in the beginning of the world before the tribes of mankind had separated. The Cocopa do not believe in descent from the totem. Totemites do not kill their totem, although at liberty to kill the totems of other clans.

The fragmentary list of Kamia clan names for women was obtained from Placidus Aspa, a mixed blood Southern Diegueño living at present on the Yuma Indian Reservation. Aspa from infancy lived with the Kamia. The clan names of women with the Kamia as with the Yuma are being anglicized and adopted as surnames. One of Aspa's girl cousins possesses the clan name of *Ikamyab* which she has anglicized to *Helimpa* as a surname, also applied to her father.

DIEGUEÑO

Both the Northern and Southern Diegueño possess non-totemic, exogamous clans with paternal descent. In both dialects the word for clan is "simüs," usually translated as "tribe." Each clan was probably localized, or at least regarded as localized by the natives. This fact perhaps renders pertinent the question whether these social groups are true clans or only local groups. Exogamy and patrilinear descent would seem to indicate that they are really clans. All members of a group consider themselves related, and often at the present day the clan name is added to, or takes the place of, the American surname. An example of the first sort is found in the case of two informants of different families, but of one clan: Jose Largo Hetmiel and James McCarty Hetmiel, Hetmiel¹¹ being the clan name. Largo and McCarty are distant relatives. An example of the second sort is found in the clan name *Kwilp* (Northern Diegueño), which has been adopted as a family name. One of my informants was called Angel Quilp. The Shoshonean peoples of southern California also frequently utilize the clan name as a surname. The groups in question have been called families by Dr. Waterman, who states that they possess migration traditions: "The Diegueño have also certain brief migration traditions, but they are localized in various families and do not at all correspond to this Mohave-Luiseno story of a general migratory stage in the history of human kind."¹²

The following list of Southern Diegueño clans was obtained from Hutekal, an aged women from the western Imperial Valley, and from James McCarty, whose ancestors lived on the east slope of the Tecate Divide.

¹¹ Miss C. G. Du Bois recorded this as a surname in the form *Hithmip* (Univ. Calif. Publ. Am. Arch. Ethn., viii, 124, 1908). Her rendering of the name is probably more nearly correct than mine, as I suspect that I was given an anglicized form.

¹² Analysis of the Mission Indian Creation Story, *Am. Anthr.*, n.s., xi, 52, 1909.

1. Kanihite. Clan of Huteukal and of her father. This clan lives at the Campo Agency, but came originally from the southwestern part of Imperial Valley. By James McCarty the name of this clan was rendered as Kwinhite.

2. Haiyipa. Clan of Huteukal's mother. Hakwino (region of "Blue Lake" and of Cameron Lake near Calexico) in southwestern Imperial Valley was the home of this clan.

3. Hakisput. Another Imperial Valley clan which lived at a place called Hateupai, where there was a spring.

4. Hetmiel. A Southern Diegueño clan now living in the mountains near Campo Agency. This clan formerly lived at Hakwasik, on the eastern slope of the Tecate Divide, below Jacumba Valley, but north of the international boundary.

5. Naxwate. Clan of James McCarty's wife. The home place of this clan was Miskwatnuik, which lies to the north of the Campo Agency.

6. Kwitak. Clan of James McCarty's mother. This clan lived on the site of Warren's Hotel at Campo.

7. Yateap. This clan lived at Hakisab, northeast of Campo Agency.

8. Kwatl. This clan lived at Hakwaskwak (Bitter Water), Jacumba Valley, Lower California. The name means "hide of an animal."

9. Tuman. This clan formerly lived near Brawley, Imperial Valley, where there are several springs.¹³ It is said to live with the Yuma at the present time. Tuman is said to mean "grasshopper" and refers to the fact that this clan ate grasshoppers. This recalls the grasshopper clans of the Yuma (see p. 158) and of the Caluilla (see p. 191). In the case of the Caluilla the name is said to have been assigned for a similar reason.

10. Himawa. This clan lived at Snaayaka (Manzanita), San Diego County. Dr. Kroeber obtained xesil as the name of Manzanita (the place) and of a species of manzanita. It is also the name of a Northern Diegueño clan (see p. 173).

11. Saikul. This clan lived at Matkwai (probably Mataguay), northeast of Manzanita.

12. Miskwis. The home of this clan was not known. An old woman of this clan lives on the Campo Reservation.

13. Kwamai. This clan lived at Pilyakai, at or near La Posta, San Diego County. Kwamai is said to mean "wishing to be big or tall."

Each clan in ancient times had a chief (kwaipai) who was selected by his clansmen. Women were never chosen. The especial business of the chief was to manage ceremonial affairs. The chief's assistant, kwaipai wahnun ("little chief") was also selected by his clansmen. The Northern Diegueño of Mesa Grande, San Diego County, stated that their clan chiefs were hereditary, which in spite of the above statements to the contrary, I am inclined to believe was the case with the Southern Diegueño chieftains. The clan chiefs of all neighboring Shoshonean groups are hereditary. Of course it must be borne in mind that the Cocopa also stated that their chiefs were selected. It is possible that the Cocopa and Southern Diegueño are similar in this respect.

¹³ Possibly the Sunset Springs, thirteen miles south by east of Brawley.

Upon marriage a woman did not become a member of her husband's clan. She always remained a member of the clan of her father. She went to live with her husband's clan, however.

The Southern Diegueño clans and those of the Colorado River tribes have two features in common, paternal descent and exogamy. The former clans seem to be localized, however, while the latter are not. As already stated, the localized Diegueño clans are non-totemic, resembling closely the numerous localized Cahuilla clans, which are non-totemic in themselves, although totemic as sections of a larger group, the moiety. The Cahuilla totems are the coyote and the wild cat, approximately half of the clans claiming the former and half the latter.

Southern Diegueño informants told me that they "claimed" the wild cat as their "property" and their "god." They believed that the wild cat "raised" them, and they never killed it. In connection with the wild cat as a culture hero the Southern Diegueño employ a color symbolism. They say that in the east there was a red wild cat, in the west a blue one.¹⁴ The eastern wild cat is called *nimikumwal* (weak wild cat) and the western wild cat *nimiküspil* (strong wild cat). The Imperial Valley people as well as the mountain people say that the wild cat is their "property."

The wild cats were made by the creator *Maiyoha* and his brother, who came from the ocean. The red wild cat went to the east slope of the mountains which he claimed as his; the blue wild cat went to the west slope which he claimed. The Imperial Valley people (*Inyak*¹⁵ or *Kwelmixa*) are the people of the red wild cat. The *Kamiyaihi* (Southern Diegueño of the mountains) are the people of the blue wild cat. Neither of these shadowy groups are exogamous, however. People are related to the wild cats as to brothers.

The two wild cats are the ones who first told the months of the year. The month in which they began counting was *Hyakwel* (cold month). Then followed five more: *Hexanimsup* (snow month), *Xatai* (cold month), *Hexapsu* (rain month), *Hatyamatinya* (rain month), and *Ixyanidja* (growing month).¹⁶ This information was gathered

¹⁴ The association of red with east and blue with west disagrees with Dr. Waterman's data. According to him, "North is associated with red, east with white, south with blue or green, these colors not being distinguished by the Diegueño, and west with black." (*The Religious Practices of the Diegueño Indians*, present series, viii, 333, 1910.) It is not unlikely that my informant, James McCarty, made an error.

¹⁵ *Inyak* means "east."

¹⁶ Miss Du Bois records the six months of the Diegueño as follows: *Huthmashap*, *Hutltai*, *Hutlpswi*, *Hutlkwurx*, *Hutlmatanai*, *Hutlanaxa* (present series, viii, 165, footnote, 1908).

during the first half of January, which time was called Natai. Although the informant (James McCarty) designated the months as "snow," "cold," "rain," and "growing," he stated that after the sixth month the series was repeated.

In a version of the origin myth presented in this paper the wild cats lead the people to the region of Campo. Following a mythical image ceremony, the red wild cat asks: "Are we to live and multiply forever, or are we to die?" Although nothing further in this connection could be obtained from the informant, it seems clear that the wild cat had a hand in ordering the affairs of men.¹⁷

Considering that nearby Shoshonean groups, namely Caluilla, Cupeño, and Serrano, have the wild cat and the coyote as totems, the above data concerning the status of the wild cat among the Southern Diegueño take on an added significance. The coyote, however, is in disrepute. When asked about him, James McCarty replied: "Coyote is a strange fellow. He is always lying, and he eats the dead. No one wishes him for a relative." The fox is not claimed as "property" as is the wild cat, even though it plays a considerable part in the Southern Diegueño creation story as obtained from James McCarty and presented in the following pages.

All was salt water in the beginning. In the water there were two deities, Maiyoha and his younger brother. Maiyoha had come to the surface of the water, when his younger brother asked how he had come up; if he had had his eyes open. Maiyoha replied, "Yes." The younger brother came up with his eyes open, but when he reached the surface he could not see. The salt had blinded him. Maiyoha pulled his younger brother up blind. With the younger brother was the silver fox (madkanwai) of the desert.

The earth was made by Maiyoha. When the blind younger brother came to the surface of the water, he felt of the earth, for he had come up to mate with it. Where the blind one put his hand on the small piece of land which had been made, there came red ants. He commenced pushing them into the ground. The more ants he pushed in, the more earth they dug up, constantly increasing the size of the land until our world was made.

The blind younger god knew now why he was to go underground later. He sat on the land after it became large. He kept feeling for his silver fox, which had come up with him in the beginning. He was four days on the ground, sitting steadily in one place. The two gods sitting by the fire made the two wild cats, the red wild cat of the east and the blue wild cat of the west.

The brothers disputed over the ownership of the silver fox which had come up with the younger brother. Maiyoha secretly put the red fox (parxan) behind his younger brother to deceive him. He asked his younger brother, "Is your fox still with you?" The blind younger brother felt the fur of the animal behind him and replied, "No."

¹⁷ In a version of the creation myth presented by Dr. Waterman (*The Religious Practices of the Diegueño Indians*, present series, viii, 341, 1910) a wild cat dance is mentioned. The context does not make clear whether it is a Diegueño dance or not.

After three days the silver fox, which was also blind, went into the ground. It is in the ground now. The younger brother went into the ground too, because he was angry over the deception practised by his older brother, Maiyoha. He went right into the earth again. After he went down a hole was left. Maiyoha tried to cover the hole with dirt scraped with his foot. He held his foot over the hole, but he had no dirt between his toes. Disease came up through the openings between his toes. It was made by the injured brother in his anger over the exchange of foxes. He was angry because his brother had thus taken advantage of his blindness.

Maiyoha, the one who stayed on earth, felt sad over his younger brother leaving him. He then made a man and a woman from clay. He made a fire and laid one piece of clay at one side of the fire and another piece at the opposite side. The man was perfect but the woman popped to pieces. Maiyoha then pulled a whisker from his chin and laid it between the legs of the image he had remodeled for the woman. The images lay beside the fire where he left them. They were dumb. All people sprang from this pair and because they knew nothing, Indians today lack knowledge of machinery and other inventions of civilization.

The god watched the images during the night. Toward morning he thought he heard them talking. At daybreak he said to himself, "I believe that I have accomplished a great undertaking. There is no need of my remaining here. Since I have done so excellently, I may as well go up into the sky."

The people asked the god how they had come into being. He told them that it was through his will and through the manner in which he had made them. He watched them as they looked at each other. They came together and slept. The god Maiyoha, the older brother, went to the sky, where he is now. The earth from which the two figures were made was Teaipakomat or Teakumat,¹⁸ the first man.

The two people he had created could not see. After remedying this defect the god Maiyoha went to the sky. As he departed to the sky he said, "I have made everything: the earth, the sun, the moon, the people." His younger brother had gone into the ground. The two created beings, the first man and the first woman were the progenitors of mankind. The morning following their first slumber children were born.

After the people had become very numerous, they prepared for a keruk (image) ceremony at Wikami.¹⁹ After this ceremony the red wild cat asked, "Are we to live and multiply forever, or are we to die?"

Wild cat led the people from Wikami in a great are to the north and west until he reached the seashore, then south along the coast, and finally to the region of Campo. The red wild cat turned back at Wikel, east of Imperial Valley. From that point the people were led by the blue wild cat.

¹⁸ Teakumat is said to mean literally teak, woman, and mat, earth. The names Teaipakomat and Teakumat correspond with the names Tuchaipa and Yokomatis or Yokomat, given by Miss Du Bois for the creator and his younger brother. She states that these two names are sometimes given as one: Chaipakomat (Jour. Am. Folk-Lore, xxi, 229, 1908; and Congr. Intern. American., xv, Quebec II, 131, 1906). Teaipakomat was obtained by Dr. Waterman as the name of the creator, the older brother (present series, viii, 338, 1910).

¹⁹ Identified by my informant with Chimney Peak, near the Colorado River, Imperial County, California. By a Diegueño informant of Miss Du Bois' Wikami is located in Mohave territory (Am. Anthr., n.s., vii, 627, 1905). The Mohave counterpart of Wikami is called Avikwame and is identified with Dead or Newberry Mountain in southern Nevada (A. L. Kroeber, Jour. Am. Folk-Lore, xix, 315, 1906).

Wild plum (akai) and chemise brush (epi) were here (at Campo) for the people to eat and to burn. The people argued over how they should live. They called on lizard to help them to decide. Lizard asked if they were satisfied. They replied, "Yes. We will do whatever you say. We will live here and die here." This is the end of the story about the coming of the people to the Campo region.

The people at Wikami wished to obtain songs and ceremonies. An immense snake named Mailhiyowita lived in the water at the south end of the world. Sandhill crane (mekolk) was sent to invite the snake to Wikami, because he possessed all songs and ceremonies. Sandhill crane cried all the way to the snake's house and all the way back, so that the people would know that he was coming and would enlarge the dance house.

Mailhiyowita asked sandhill crane, "Why did you come?" Sandhill crane replied, "The people sent me after you. They want songs of different kinds." The snake said he would go and crane told him to arrive at Wikami late in the afternoon. Sandhill crane returned and told the people that he had delivered their message and that the snake was coming. The snake was very large, being about a foot and one-half in diameter. The snake coiled in the house which the people made for him so that he completely filled it. They kept extending it until daylight, when they set fire to it. They set fire to the house with the snake in it, because he would not divulge the songs. The snake burst. The larger portion of him slid back southward; the smaller portion remained at Wikami, where it is still visible together with the tracks of the people. A portion of the snake's knowledge flew over to Campo, where it was secured by the people. The following are the songs which were thus secured by the Campo Diegueño: Teaiyantai, Tomant,²⁰ Tuharl, Bataumaltaiye, Sil,²¹ Atcawhal,²² Urorp,²³ Hurlturli,²⁴ Tipai, and Isa.

The following data refer to the Northern Diegueño. An informant (Tomaso Curo) at Mesa Grande, San Diego County, gave me the names of twelve Northern Diegueño clans and of one Southern Diegueño clan, the Kwatl (see p. 168). All of the Mesa Grande clans lived at Mesa Grande only in the summer and at a place known as Pamo in the winter. The name Pamo, Tomaso Curo informed me, means "a hole worn in the rock by water." Dr. Kroeber obtained from Rocendo Curo, Tomaso's brother, the following derivation: pamm, to sit; mu, a bush. The elevation of Pamo is about nine hundred feet; that of Mesa Grande is thirty-three hundred feet. Pamo village, located in a valley now known by that name, lay downstream from Mesa Grande about nine miles and is spoken of as the real home of the Diegueño now living permanently at Mesa Grande.

²⁰ Recorded by Miss Du Bois as Tutomunp (present series, viii, 123, 1908). Probably equivalent to Mohave Tumaupa (according to A. L. Kroeber).

²¹ Probably Esily (salt).

²² Possibly to be identified with Kachawharr, recorded by Miss Du Bois (*Jour. Am. Folk-Lore*, xxi, 229, 1908).

²³ Recorded by Miss Du Bois as Orup (present series, viii, 124, 1908).

²⁴ Probably equivalent to "Horloi," the name of a Northern Diegueño dance (T. T. Waterman, present series, viii, 320, 1910).

Formerly strangers caught poaching in the Mesa Grande region were killed.

1. Kukuro. This word is said to mean "dark" or "shaded." This is the clan of Tomaso Curo, whose ancestors lived at San Diego Mission and at Tijuana, Lower California. He was not certain of the original home of the clan.

2. Leteapa. This name is said to mean "short," although this is not the meaning of Spanish La Chapa, which this name appears to be. A family by the name of La Chapa is attributed to Manzanita, San Diego County, by Dr. Waterman.²⁵

3. Matwir. This name is said to mean "hard like rock." This clan is said to have been very numerous in former times, occupying the country for eight miles to the south of Mesa Grande. Miss Du Bois gives this as one of the Indian names of *Unon Duro*, a Diegueño informant, whose full name she gives as "Ho-ko-yél Mut-a-weér."²⁶

4. Criteak. This is probably the name of a species of owl. The clan bearing this name lived at both Pamo and Mesa Grande.

5. Kwilp. This is said to be the name of a shrub. The clan of this name lived at both Pamo and Mesa Grande.

6. Xesil. This is the name of a small variety of manzanita, which at the present day furnishes berries for jelly. The clan bearing this name lived at the village of Tauwi (San José) on Warner's Ranch at the foot of the "Mesa Grande Mountains."

7. U'u. A species of owl. This clan lived at both Pamo and Mesa Grande.

8. Baipa. A clan living at Santa Ysabel.

9. Esun. A clan living at Santa Ysabel.

10. Gwaha.²⁷ A species of wormwood (*Artemisia*). This is the name of a Santa Ysabel clan.

11. Tuman. This name is said to mean "grasshopper." This clan was scattered, living at Mesa Grande, Santa Ysabel, and elsewhere. At present members of it live at Capitan Grande. The informant distinctly stated that this was not the Tuman clan of the Southern Diegueño (see p. 168).

12. Xipuwate. A Santa Ysabel clan.

The Northern Diegueño clans are exogamous. The clan of a child is always that of its father. A woman is said to become a member of her husband's clan, a custom at variance with the reported Southern Diegueño custom. It may be that the informant interpreted living with the husband's clan as becoming a member of it. However, as descent is patrilinear with both Southern and Northern Diegueño, the fact that the wife becomes, or does not become, a member of her husband's clan in no way affects the result.

Each clan had an hereditary chief known as a kwaipai or kuteut. The widow of a chief might perform the functions of her deceased husband. The chief's assistant was called korean. Some members

²⁵ Analysis of the Mission Indian Creation Story, *Am. Anthr.*, n.s., xi, 52, footnote, 1909.

²⁶ Religious Ceremonies and Myths of the Mission Indians, *Am. Anthr.*, n.s., vii, 621, 1905.

²⁷ Dr. Kroeber obtained the words "ily gwaxan" for "woods."

of a clan were scattered, but when the clan gave a ceremony, the chief recalled the scattered members to assist. My informants assigned the scattering to the necessity of making a living and to deaths in the family. The first cause did not operate in ancient times.

At Pamo, where several of the Northern Diegueño clans lived, there was a village chief (also called kwaipai) in addition to the hereditary clan chiefs. The village chief was elected. Each clan owned an eagle (or more likely a pair of eagles), and the feathers of an eagle killed ceremonially were used for the making of a feather skirt.²⁸ Other ceremonies with animal motives occur following dreams and when animals are killed under peculiar circumstances. If a man dreams of a rattlesnake he must give a dance afterwards. A year before my visit at Mesa Grande, a wild cat was killed while trying to enter a house. The man who killed it had to give a propitiatory dance.

The information from Northern Diegueño informants does not seem to indicate as definite a localization of the clans as do the Southern Diegueño data. It is possible that removal to the missions and subsequent segregation on reservations has effaced the knowledge of the original distribution of clans from the minds of the Northern Diegueño. The more remote Southern Diegueño, less in contact with the missions, would certainly be more likely to retain such information.

PIMAN CLANS

It seems necessary to reproduce the evidence concerning totemic clans among the Pima and Papago for comparison with the Californian data presented in this paper. The Pima and Papago, like the Californian tribes under consideration, trace descent through males. Mr. Frank Russell²⁹ and Mr. E. S. Curtis³⁰ have published brief accounts of the Pima clan system. These do not agree in certain respects and are therefore quoted in full. Mr. Curtis has published also an account of the Papago clan system,³¹ which is likewise quoted in full.

The following quotation presents Mr. Russell's Pima data:

Descent is traced in the male line and there are five groups that may be called gentes, though they exert no influence upon marriage laws nor do they manifest

²⁸ The eagle ceremony is described by Dr. Waterman (present series, VIII, 314, 1910).

²⁹ 26th Ann. Rep. Bur. Am. Ethn. for 1904-1905 (1908), 197.

³⁰ The North American Indian (Cambridge, University Press, 1908), II, 9.

³¹ *Ibid.*, p. 32.

any evidences of organization so far as ascertained. The names of these groups have lost all meaning. They are called A'kol, A'pap, A'pūki, Ma'am, and Va'af.

The first three are known as the Vulture or Red People, the last two as the Coyote or White People. However, they are spoken of as the Suwuki O'himal and Sto'am O'himal, or Red Ants and White Ants.³² In the Pima creation myth presented in full in this memoir reference is made to black ants, teoteik tatany, and to the termite, hiapite, but no connection is supposed to exist between them and the o'himal.

The Red People are said to have been in possession of the country when Elder Brother brought the White People from the nether world and conquered them as described on page 226. There were more than two gentes of the White People, but Coyote laughed too soon at them and the earth closed before the others got through. The author suspects that this division signifies that the tribe was formed by the junction of two peoples, the only trace of the original groups being the names and the maintenance of the laws of vengeance.

Mr. Curtis says of the Pima:

The Pima have five tribal divisions, known as *wū' makūlt*, which may be designated phratries, as they are aggregations of gentes with totemic names. Children belong to the father, whom they call by the phratral name. The five totemic names, all synonymous with the word "father" and bearing obscure meanings, are Apap, Apk, Mam, Vāh, and Okali. Apap and Apk are associated with the coyote, and Mam and Vāh with the buzzard. The people of the first four are numerous, but of the Okali only a few representatives survive. This division, according to the genesis myth, was broken in its inception, only a few succeeding in reaching the upper world. Marriage within a phratry seems never to have been prohibited; marriage was without ceremony, and was often soon followed by separation.

Of the Papago he says:

There are five gentile groups, though it can hardly be said that any strict gentile organization now exists. Children belong to the father's group. The creation myth tells how, when Chū wūtū ma'ke's destroying horde marched up into this world from the east, the first to come were those who were to call their fathers Apap; then came those whose fathers were to be Apk, Mam, Vāf and A'kūli respectively. These names were no doubt totemic in their origin, but only the first and third can be identified. Apap is associated with the coyote, Mam with the buzzard. There is no general word for father; to each individual "father" is simply the name of his gens, if such groups may be so called. A member of the Apk gens, for instance, calls his father *myū' apkī*, of the Mam gens, *nyūm'am*, *nyū* meaning "my." Collectively the members of the gentes are called Apapakam, Apkikam, Māmakam, Vāfakam, and A'kūli kam.

Of so little importance are the gentes that marriage within them is not prohibited, or even regarded as unusual.

Mr. Curtis' list of five Pima clans agrees with Mr. Russell's. It is clear from both accounts that there is a perhaps loose grouping of the clans in two opposed moieties. Mr. Russell identifies one moiety

³² The same divisions exist among the Papagos, and José Lewis, who interpreted for Professor McGee, submitted specimens of the ant as examples of the insects referred to as 'o'himal.'

with coyote, white ant, and white; the other with vulture (= buzzard), red ant, and red. For the vulture moiety Mr. Russell lists the A'kol, A'pap, and A'pūki groups, for the coyote moiety the Ma'am and Va'af groups. Mr. Curtis on the other hand reverses this arrangement, placing Ma'am (Mam) and Va'af (Vâh) in the vulture moiety, and Ápap and Apk in the coyote moiety. With regard to the Papago, Mr. Curtis also states that "Ápap is associated with the coyote, Mam with the buzzard," as in Pima society. The Pima use of three synonymous terms for each moiety is reminiscent of similar nomenclature of the Miwok moieties.³³

A feature of the Piman clans comparable with the Yuman clan names for women is the special and distinctive term for "father" in each clan.

The Papago information secured by Dr. Kroeber from Mr. Juan Dolores, a member of that tribe and author of a paper on "Papago Verb Stems,"³⁴ agrees in part with that submitted by Mr. Curtis and also adds some new facts. Mr. Dolores remembered only four clans. He disagreed with Mr. Curtis by assigning okoli (A'kūli) instead of Mam to the buzzard. The following paragraphs present the data secured by Dr. Kroeber from Mr. Dolores:

The ordinary Papago term for father is ok, my father nyok. In using this general, or non-clan, term for father, "it would not be clear where people belong," Mr. Dolores said. He is of the (red) uhhimali clan himself and would normally call his father by this clan's term nyimam; in rare cases he might use the general term nyok. The Papago totemic clans together with the terms for father may be briefly listed as follows:

Buzzard (nyu^hwi) people call father okoli.

Coyote (pax) people call father alpar.

(Red) uhhimali (an insect) people call father mam.

White uhhimali (an insect)³⁵ people call father va'aw.

A Papago myth referred to by Mr. Dolores, relates how four brothers "took" these four "names," or "relationships," or "signs."

³³ E. W. Gifford, *Miwok Moieties*, present series, XII, 140, 1916; C. H. Merriam, *Indian Village and Camp Sites in Yosemite Valley*, *Sierra Club Bull.*, X, 203, 1917.

³⁴ Present series, X, 241-263, 1913.

³⁵ The uhhimali is larger than ant or spider (Itiuch). It lives singly in holes in ground; has no wings; stings; has hair on back. Some are reddish, some whitish.

The question, "What clan-relationship do you follow?" would be stated in Papago as follows:

cahtyo'ot
What

mü
(interrogative)

wüo-mokahli
with-go

In the case of Mr. Dolores the answer would be "uhhimali" and not mam; in other words the name of the group or totem and not the special word for father.

Descent in these groups is entirely paternal. One can marry within his clan group but not within his family or village. All in a village are considered related. The clan groups are not locally limited. All occur in every village, except the white uhhimali, which is now quite rare.

Without further data it is impossible to say whether or not village exogamy is a recent innovation which has taken the place of clan exogamy. The absence of clan exogamy would seem to indicate that the clans as such have disintegrated.

SHOSHONEAN CLANS AND MOIETIES

The Serrano, the Cahuilla, the Cupeño, and the Luiseño of southern California are organized on the basis of exogamous, patrilinear, and apparently localized, clans. The clans of the Serrano, Cahuilla, and Cupeño are grouped in two exogamous moieties, which are totemic, being identified with the wild cat (tukut) and the coyote (isil in Cahuilla and Cupeño; wahl in Serrano). The Luiseño clans are not grouped in moieties. The Serrano, Cahuilla, and Cupeño clans are exogamous as components of the moieties; that is, a member of the wild cat moiety marries only a member of a clan of the coyote moiety. The clans of the Luiseño are exogamous and non-totemic, though at present quite thoroughly disintegrated. On the one hand they appear to have disintegrated into families as far as reckoning descent is concerned and on the other hand to have become amalgamated into "parties" or religious societies as far as ceremonial functions are concerned. Membership in the parties or religious societies extends beyond the range of even mythical kinship reckoned paternally.

In considering the data presented in the following pages, it must be remembered that the Luiseño were long in charge of Spanish Fran-

cisean missionaries, while some of the Serrano, Caluilla, and probably the Cupeño were never converted in the mission period and others were under Spanish control for a shorter time than the Luiseño.

SERRANO³⁶

The Serrano are organized on the basis of exogamous totemic moieties. One moiety is called wahilyam, and has as totems coyote (wahil), the chief totem for which the moiety is named, buzzard (widukut), and wolf (wanats). The other moiety is called tukm, and has as totems wild cat (tukut), the chief totem for which the moiety is named, crow (gateawa), and mountain lion (tukuten). The names of the first two totems mentioned for each moiety were volunteered by the informant. Wolf and mountain lion were added in response to my query. Wolf is said to be coyote's older brother and mountain lion wild cat's older brother. Vulture is considered a relative of coyote's, and crow a relative of wild cat's. The totem is called nükriig (my great grandparent) or nüñakan. The use of the term for great grandparent for totem has parallels in the other southern California Shoshonean tribes, as have the totems coyote and wild cat. The creator Pakrokita is said to have assigned the totems. People of different moieties, especially relatives, often jokingly called each other coyotes and wild cats. Coyote people are reputed swift in their movements, wild cat people slow and lazy in theirs. People are said to have killed their totems. The totems are believed to have been originally men, who later became animals, a belief held with regard to the entire animal kingdom.

Serrano society is also organized on the basis of localized clans, or possibly local groups, in addition to moieties. These bear a striking resemblance to the localized Caluilla groups (see p. 186). Certain of the names of these supposed clans have previously been secured by Dr. Kroeber as place names, a fact which makes it conceivable that these Serrano divisions are merely local groups. On the other hand, it seems to be more in accord with the facts to regard them as localized clans. Eight of the fourteen groups listed below were assigned by informants to one or the other of the two moieties. Each of these eight groups was exogamous as a member of one of the moieties, patrilinear in descent, and possessed its hereditary chief (kika) and

³⁶ The data on Serrano social organization were secured entirely at Banning from the following informants: Benjamin Morongo (about 80 years of age), Rose Morongo, Elizabeth Martin, and Miguel Sabateo.

hereditary ceremonial assistant (paha). The following list includes some northern Serrano groups, although it primarily consists of southern Serrano groups. It is undoubtedly quite fragmentary.

1. Morongo. This clan, which is called Marongam by the Cahuilla, is the one most numerous represented on the reservation at Banning to-day. The members of it have adopted Morongo as their surname. This clan belongs to the coyote moiety. Bear Valley (Hatauva) was the Morongo home. They also claimed Yucaipa, Akavat (a place back of Beaumont, the name of which is said to mean "bear"), Mission Creek (Yamisevul), and Durka (Big Morongo), although Durka was mentioned by one informant as Mohiyanim territory.

2. Mohiyanim. This clan is represented to-day at Banning. It lived with the Morongo clan in ancient times and seems to have been the favored clan in marriages. It belongs to the wild cat moiety. This name in the form Mōhineyam has been used by Dr. Kroeber for the northern Serrano living along the Mohave River (Shoshonean Dialects of California, Univ. Calif. Publ. Am. Arch. Ethn., iv, 139, 1907).

3. Mukunpat. This clan is of the wild cat moiety and lived with the Morongo and Mohiyanim clans. It intermarried with the Morongo clan.

4. Atiaviat. A coyote clan living at Mission Creek (Yamisevul). Atiaviat is said to mean "something big." Miguel Sabateo belongs to the Atiaviat clan. The Atiaviat never married the Morongo, but married Mohiyanim and Mukunpat. The Morongo formerly visited Mission Creek for a certain kind of seed.

5. Kaiyuwat. This clan (?) is said to have lived north of the San Bernardino Mountains, across from San Manuel Reservation. It plays an important rôle in the Morongo clan legend to be related later.

6. Maviatum. This clan (?) inhabited Maviat, the Mohave River region, north of the San Bernardino Mountains.

7. Amakhavit. A third Serrano clan (?) living north of the San Bernardino Mountains. From west to east these northern clans (?) are Maviatum, Kaiyuwat, and Amakhavit. Undoubtedly these Amakhavit are the mysterious Amakhau or Amakhaba of whom Dr. Kroeber makes the following statements (Univ. Calif. Publ. Am. Arch. Ethn., iv, 136, 1907): "The Mohave are still known to the Tehachapi-Tulare tribes as people living on a distant large river, from whom visitors occasionally came. The Yokuts informant from whom part of the Kitanemuk vocabulary was obtained called them Amakhau, the Tübatulabal informant Amakhaba; the latter regarded their language as similar to Kitanemuk, from which of course it is utterly distinct. Of the two Yokuts informants at Tejon, who also called them Amakhaba, one characterized them as 'muy bravos'; the other classed their language as distinct, with some words somewhat resembling Kitanemuk. It is curious that this belief that there is in the Tejon region a tribe similar or linguistically related to the Mohave, should exist both among the Mohave themselves, the Yokuts, and the Shoshoneans, without the least apparent basis." In the light of the Serrano statement to the effect that the Amakhavit are Serrano, the statements of Dr. Kroeber's Tübatulabal and Yokuts informants with regard to the Kitanemuk (Serrano) affinities of the Amakhaba language take on a new color.

8. Yuhaviat. Yuhaviat is said to mean "pine men." This clan lives now at San Manuel Reservation near Patton, San Bernardino County. It is said to have lived originally in or north of the San Bernardino Mountains, and to have moved to San Manuel after white people came. The original inhabitants of San Manuel, according to Benjamin Morongo, were Gabrieliño, who called the place

Apwimen. Another Gabrieliño village was located one and one-half miles south-east of Colton. Its inhabitants were called Wateap. Benjamin also mentioned the Kiñkiup, Indians who lived on an island in the ocean. This is very clearly Kingki, listed by Dr. Kroeber as "evidently San Clemente Island" (present series, viii, 38, 1908).

9. Pauwiatum. This is a coyote clan living north of the San Bernardino Mountains. Some people of this clan are said to live at San Manuel Reservation to-day.

10. Kupatea. A wild cat clan living in the San Bernardino Mountains.

11. Tamwionots. This name refers to the sun, and was the name of a wild cat clan living at Mara, Twenty-nine Palms.

12. Timanamunteoip. A Serrano clan (?) living at Redlands.

13. Tekelkiktum. By Caluilla informants this was given as the name of a Serrano wild cat clan. The last member of this clan is said to live at San Manuel Reservation.

14. Agutas. This group is identified with people of the Tehachapi Mountains by Benjamin Morongo. One of Dr. Kroeber's informants applied a variant of this term (Agutush-yam) to the Kawaiisu (present series, iv, 140, 1907).

Four of the above groups seem to have dwelt together: Morongo, Atiaviat, Mohiyanim, and Mukunpat, the first two being of the coyote moiety (wahilyam), the second two of the wild cat moiety (tukum).

The following information concerns the Morongo and Mohiyanim clans especially. The data presented were obtained from Benjamin Morongo, a member of the Morongo clan, whose wife was of the Mukunpat clan. Benjamin has perhaps drawn the picture of his own clan in overbright colors, although there seems to be no doubt but what it was the most numerous and most powerful of the group of clans in the San Bernardino Mountains. Since the following data concern in large measure two clans of opposite moieties, it is quite probable that it in similar degree applies to other clans of the two moieties.

Morongo informants, in addition to Benjamin Morongo, stated that it was traditional for Morongo men to marry Mohiyanim women, one informant assigning the origin of this custom to the beginning of the world, when it was so ordered by the deity Pakrokitat. The custom has broken down under Caucasian rule. Benjamin Morongo stated that there were clan names for men and women, a statement for which I could obtain no verification elsewhere. Benjamin stated that Morongo men were called Morongo, the women Malena, that Mohiyanim men were called Nudi, women Yeteaiwa. Rose Morongo, however, gave Malenikik as a synonym for Morongo. She said that Malenikik referred to a place of residence of the Morongo clan (Malena, the place; kik, living there). If it is true that the men

and women of each clan had special clan names, we certainly have an analogy to the Colorado River Yuman custom by which all of the women of a clan have one name (see p. 156). The personal name of Mrs. Elizabeth Martin's mother, a Morongo woman, was Helimpa, a name given her by her paternal grandfather and having no reference to her clan or moiety.

Each of the clans in question had its chief (kika) who inherited the position from his father. In rare cases when a male heir was lacking a woman succeeded. Each clan also had a ceremonial assistant to the chief called paha, whose chief duties were in connection with ceremonies. Benjamin's father's older brother was a Morongo chief.

Pakrokitat made the Morongo the "governors of the world." At the same time that the Morongo were created, the Mohiyanim seem to have been brought into existence also. The Morongo address each other as brothers and sisters, using, as well as the ordinary terms, the term hamut, which is always applied to one of the opposite sex (see p. 183 for mythological application of this term). The terms for older or younger siblings are used where there is disparity in age. The Mohiyanim have the same usage. The informant said that he would call any Mohiyanim woman aunt, cousin, or sister. The Cahnilla address the Morongo as older brothers, according to the informant.

The reciprocal functions of the two clans seem to have been unequally divided. The Mohiyanim appear to have had more than their share of ceremonial duties. At a ceremony the Mohiyanim cooked for and served the Morongo. They brought "everything, like Santa Claus." These functions, according to the informant, were not reciprocated by the Morongo. On the other hand the Mohiyanim never took the initiative in making a ceremony: the Morongo through their chief did that. It was the business of the Mohiyanim to construct the "tule ceremonial house" and to act as messengers in connection with a ceremony.

In the beginning Pakrokitat made the tule house for the first ceremony. Each mortal chief since his time has had one. At death the body was taken to this house in which it was bewailed for one night. On the following day it was burned. In this connection the relations of the two clans, and incidentally the moieties, seem to have been truly reciprocal, the Morongo tending to the Mohiyanim dead and *vice versa*.

It was a function of the Mohiyanim paha to name the children of both clans, naming them usually after relatives long deceased. As no personal names were obtained, it is impossible to tell whether or not each clan had its special set of names. According to the informant all of the above ceremonial functions were ordained in the beginning by Pakrokitat, while the people were still in the far northern country of their origin. At that time it was ordered that the two clans should intermarry. The two clans hunted together. Coyote is older than any other animal, for he is the Morongo totem and they were first created.

The paha or religious chief had charge of all ceremonial paraphernalia. It was his business to notify people of the fiestas. He talked to the guests at a fiesta, and attended to all commissary arrangements. One Mohiyanim paha, named Melantin Santiago, is left. The ceremonial singer (teaka) was of the Morongo clan and inherited his position from the father or father's brother. He sang the myths of the creation and of the origin and wanderings of the Morongo. The present teaka is Thomas Morongo, Benjamin's nephew.

When a man saw a girl he desired in marriage, he spoke to his mother. She took up the matter with the chief (kika) of the man's clan. If the chief favored the match, either he or the man's mother visited the girl's mother. Upon marriage the chief lectured the bridegroom, telling him to hunt, secure food, and care for the girl and her parents. A man gave half of the results of the chase to his wife's parents.

Benjamin Morongo stated that the two clans, Morongo and Mohiyanim, elected a joint chief also called kika, who was always a Morongo. This is quite possibly a modern innovation.

The following myths were recounted by Benjamin Morongo. The first deals with the creation and the origin and wanderings of the Morongo. The second relates to the electric fire ball called Takwite, and the third to the destruction of the village of Wiñi by a hostile spirit, together with its subsequent rehabilitation.

Origin Myth.—First came into existence Pakrokitat, our father. From the left shoulder of Pakrokitat was born Kukitat, Pakrokitat's younger brother.³⁷ Pakrokitat made first a Morongo man. Pakrokitat told him, "You will have company soon." From the right side of the man above the thigh Pakrokitat

³⁷ One informant mentioned another Serrano deity, the goddess Namuyat. Nothing was learned of her attributes. She is undoubtedly to be identified with "Nanamüyyat, six large stones, 'goddesses,' in or near Little Bear valley" (A. L. Kroeber, *Ethnography of the Cahuilla Indians*, present series, VIII, 34, 1908).

made the first Morongo woman.³⁸ He made woman from a piece of the man's flesh called atek. The two were brother and sister. Numerous Morongos were made (born?).

Kukitat hindered the creative work of Pakrokitat. The two argued and quarreled continually. Kukitat wanted people to have hands like ducks' feet, but Pakrokitat objected. Kukitat wanted eyes and bellies in both front and back of people, but Pakrokitat would not allow such an arrangement. Pakrokitat said that people should never sicken, should never die. Kukitat asked, "What will people eat if none dies?" Pakrokitat replied, "We will grow something to eat." Pakrokitat wished people to live forever or to return to life three days after death, but Kukitat objected, saying, "No, we will burn them when they die." Kukitat is the origin of all evil, past and present.

At last Pakrokitat became disgusted with his younger brother Kukitat's machinations and objections to all that he planned, and he said to him, "I am going to leave this world to you. I am going to make another world. Perhaps you can do better here than I. You stay here." In the new world which Pakrokitat made, people do not die.

Pakrokitat, when ready to leave, sang, saying that he was going to another world and that he was leaving this world forever. This world he said would be a "hell," while his world would be a blessed place. "When a person dies," he said, "his 'heart' (ahun) will go to the other world, while his body remains behind to rot."

Upon leaving his brother Pakrokitat went first into the ocean, where he created the island of Paiyait.³⁹ Pakrokitat then made from a piece of flesh above his left thigh bone the three Pananam, beautiful goddesses, who reside in Paiyait. After visiting Paiyait, Pakrokitat passed with his eagle southeast along the San Geronio River searching for his new world. After reaching his new world, he never returned.

The three Pananam (= "water women") are called "hamova."⁴⁰ The soul of the deceased goes first to Paiyait, the home of the three goddesses, because that is where Pakrokitat went first when seeking another world. The souls of wicked people are often unable to find the road to Paiyait, and are forced to remain upon earth. The three goddesses instruct the soul of the deceased as to the road to Pakrokitat's world. From Paiyait two trails lead, one to Pakrokitat's land, the other to the world of darkness where the souls of the wicked dwell. The three goddesses read the soul of the deceased and know whether its acts upon earth have been good or evil. They send it along either trail accordingly. The place of darkness is called Tripyat⁴¹ and a portion of it, where the wicked are boiled, is called Patmonat (= "hot water").⁴²

The Morongo came from the far north. As they moved southward they followed a pure white eagle, which was the bird of Kukitat. This bird had thirteen tail feathers, while other eagles have but twelve. Kwiriakaite (Mount

³⁸ Probably Biblical.

³⁹ The informant said this name meant "heart alive;" heart, however, is given as *ahun* in the paragraph above.

⁴⁰ Said to mean "our sisters [who live in the ocean]," although the actual meaning of "hamova" is probably simply "sisters." The term *hamut* is used when speaking of one. *Hamut* is also the term which may be used by a man to his sister or a woman to her brother.

⁴¹ (Cf. Yokuts *Tripmi* (at the above, or at the supernatural), the name of a place in Kitancumuk Serrano territory (A. L. Kroeber, present series, iv, 139, 1907).

⁴² Aboriginal?

San Gorgonio) became the home of this wonderful eagle. It was also inhabited by several white bears which normally dwell in a small lake on the mountain. A seven-headed snake likewise lives upon it. Kwiriakaite is the property of the Morongo.

Both Pakrokita and Kukita came with the Morongo to their present home. Then ensued the separation of the brothers, and later the death of Kukita together with the disappearance of the white eagle. After the departure of Pakrokita, Kukita dwelt with mankind for thirty years. It was after Pakrokita departed that men were divided into tribes and began to speak different languages. They tried to shoot each other with arrows, but could not hit one another. This was all due to Kukita's evil schemes.

When the people became tired of Kukita because of the wars he instigated, they decided to kill him by witchcraft. They employed the frog (wakat) to kill him. Kukita was in the habit of defecating in the ocean. The frog waited in the waters below and swallowed his excrement. Kukita realized that the frog was below him, but could not see it. He knew that something was wrong, because usually when the excrement sank in the ocean there were three rumbles. On this occasion there was no noise. Kukita poked downward with his javelin (?), the blade of which ran down the frog's back, making the marks which are now there. The frog had poison in its mouth. Contact of this poison with the excrement caused Kukita to become ill.

Kukita sent crow to fetch a doctor when he fell sick. Crow ate the eyes of dead people and became black from staying in mud.

When Kukita lay dying in the early morning he told the people to burn his body, but not to bury it, for he feared that coyote would eat it. He sent coyote far north to obtain wood for the funeral pyre. Before coyote's return the body was placed upon the pyre and almost entirely consumed. Coyote returned and saw the people assembled about the funeral pyre of Kukita. Coyote said, "What are you burning? I want to see my father." The people were standing close together and he could not squeeze through the line. Badger, however, was haw-legged and coyote squeezed through between his legs and stole Kukita's heart. Animals were still people at that time.

The body of Kukita was burned at Hatauva⁴³ (Bear Valley), a well-watered region in the San Bernardino Mountains. On the spot where it was burned came a spring, which is now hidden beneath a reservoir. In his youth the informant saw the spring and saw the marks on the ground where the people had danced around the pyre.

After Kukita's death people fought as before his death. They fought over food. The Morongo were annihilated in the fighting, but one man escaping. This man married a Kaiyuwat woman. The man died, but the woman gave birth to a boy baby. When the boy grew up he thought and dreamed for three nights about himself. He asked his mother about the land of his father's people. She told him that the land of the Morongo was his. The woman's father, seeing him in such a pensive mood, thought that his grandson was ill. The boy told his grandfather that he was going to his own country, which made the old man very sad. The woman took her son toward Morongo land. They arrived at a Mohiyanim village and remained there for a while. The chief (kika) of the village came home from a hunt. His wife told him that strangers were stopping with

⁴³ Perhaps Hatauva is the place called Tova in Luiseno. Dr. Kroeber writes: "Wiyot died at Tova near Maronge, north of the San Jacinto Mountains where the Serrano (Maringayam) live." (*Two Myths of the Mission Indians of California*, *Jour. Am. Folk-Lore*, XIX, 313, 1906.)

them. The chief asked who the boy's father was and the boy's mother told him. They went to the "big house" and sang all night. In the morning the boy married the two daughters of the chief. The boy became the progenitor of the modern Morongo.

Takwite.—Takwite, an evil person, had been annoying a woman. Coyote had one arrow and attempted to kill Takwite, whose body was a golden walking stick. Coyote's arrow broke the gold stick which formed Takwite's body. Takwite flew away to Mount San Jacinto and became the electric fire ball. He attacks people at times and throws them into a fire which he kindles. Takwite has a house on Mount San Jacinto in which there is reputed to be much gold.

A Cahuilla boy living in Cahuilla Valley was once taken by Takwite to his home on the mountain. The people of the boy's village had gone out to gather acorns, which the region furnishes in abundance. The boy and his baby sister were left alone at home. Takwite came and took the boy away. In Takwite's house, the boy saw many captives of various tribes. Each night Takwite brought home more captives, often removing their eyes. There were many bones in Takwite's house. He kept the boy for three days and then released him. He made the boy promise to tell no one of what he had seen for three days. The three days, however, were really to be three years. The boy's mother questioned him as to where he had been, but to no avail. When the three years had expired the boy told his mother and prepared to make a ceremony. He had secured supernatural power from Takwite. He could remove his head and arms and replace them, making himself whole again. This he did in the ceremony in the middle of the night. After his dance he retired. He was dead in the morning.

Destruction of Wiñi.—Near the village of Wiñi (near Corona, Riverside County) was a rock on a hill. In this rock lived a spirit named Tuit. A little girl in the village, two or three years old, cried incessantly until her mother in anger threw her out of the house. The spirit Tuit took the child to his house that night. Tuit raised the child, whose name was Pahalali.

Gopher (*mañat*) lived with the spirit. When five or six years old the girl asked gopher what the fire and smoke was which she saw so frequently. It was really the spirit. Gopher told the girl that the smoke arose from where the spirit cooked. The water which the spirit gave the girl was urine, the salt was mucus. "The spirit is not your mother," gopher said. The girl asked about her mother three times and gopher answered thrice.

The girl said one day, "I should like to go to my mother." Gopher replied, "You can go, but the spirit may kill you. I will make two holes for you. You go under the water toward Temescal." The girl went as directed and arrived at Wiñi. People asked her whence she had come. She replied, "My mother told me when I was small that a spirit would get me. He did get me and raised me."

Gopher said, "Tell your mother to put you in a bundle and place you in the 'big house.' Have all the people watch you. The spirit will look for you and try to kill you." The girl repeated to her mother that which the gopher had said. The woman then put her daughter in a bundle and placed her in the "big house." The chief prepared for a fiesta. Gopher again instructed, saying, "Tell your mother to heat a rock very hot. When the spirit asks for you, tell him to open his mouth to receive you. Then shove the hot rock into his mouth."

After dark the spirit came home and asked for Pahalali. He asked Gopher about Pahalali. Gopher said, "I saw her playing here but a short while ago." The spirit then threw into the air a magic basket to determine in which direction Pahalali had gone. The spirit followed the basket toward the "big house" in which Pahalali was concealed. The spirit arrived at the door and asked for

Pahalali. The girl's mother said, "Open your mouth for your Pahalali." She threw the hot rock into his mouth. The spirit shouted "Haa!" in pain, kicked in the house, and ate all of the people except one old woman and a dog, who were covered with a basket.

The surviving old woman cried as she searched for her people, but she could do nothing. She wandered here and there. While the old woman was away, the dog became a boy and killed rabbits. The woman returned and asked the dog, "Who killed the rabbits?" The dog only wagged his tail in response. After two months, the old woman, who had become quite strong, went a long way. Upon her return she saw a young man at her dwelling. This young man was really her dog. As she approached him she became a young girl. She walked up to him. They married and the village of Wiñi was repopulated. The spirit Tuit was killed by the hot stone at the same time that he destroyed the village and the people.

The informant saw the ruins of Wiñi and asked his mother-in-law about them. She told him the above story.

CAHUILLA

The Cahuilla were visited in two localities, at Banning in San Geronimo Pass at an elevation of twenty-three hundred feet and at Coachella in the Colorado Desert, seventy-six feet below sea level. The Cahuilla in both localities are organized in exogamous moieties identified with the coyote (isil) and the wild cat (tukut). The coyote moiety is called istam, the wild cat moiety tuktum. Descent is paternal. There is no belief in descent from the totem, but the totems are said to have been men once. This is clearly only an individual application of the general Californian belief that the present animals were once men. Such also is their treatment in Cahuilla mythology. No other animals seem to be associated with coyote and wild cat as totems. Public sentiment as to exogamy is not very strong. Two of the Coachella informants, Captain Jim and his son, married women of their moiety, which is the wild cat.

The Cahuilla moieties are divided into numerous localized, non-totemic clans with paternal descent. The clan name frequently is to be translated as "living at 'such a place'," indicating clearly that at least the natives regard the clans as localized. A clan of the coyote moiety is supposed to seek its mates only in clans of the wild cat moiety, and vice versa. Upon marriage a woman goes to live with her husband. She does not become a member of his clan and moiety, but remains a member of that into which she was born. At the present time the members of certain clans are rather scattered, perhaps due to modern influences. Informants stated, however, that in ancient times there was more or less shifting of clan members from

place to place, due chiefly to deaths, which were followed by the destruction of the dwelling and removal of the family.

Clans are called "tribes" by the present-day Caluilla, the native term being *taxelo*. Each clan had an hereditary chief called *net*, who was of course a member of the clan. He was actually the "head of the family" in a patriarchal sense, for all members of a clan claim to trace their descent through males from a common male ancestor. The principal duties of a clan chief were in connection with ceremonies. An informant spoke of the clan chief as "(el jefe) *potencio*" and "chief of the fiesta." There are no moiety chiefs and no chieftainesses. A chief, appointed by the whites, apparently as a go-between, and exercising power over a number of clans, was said to have been called *teimuluka*. Each chief had an hereditary *paha*, or ceremonial assistant. Clans of both moieties are said to have lived in one village, which would seem to indicate that there were several clan chiefs and ceremonial assistants in each village, a condition paralleled in the present-day Luiseño villages, in each of which there are usually two or more party chiefs (see p. 207). Maria Augustine, my informant at Augustine Reservation near Coachella and a member of the Sewakil clan, stated that at Toro there are two chiefs, Francisco Torres of the wild cat moiety, and Chapo Levi of the coyote moiety, both of whom inherited their positions. At first hand it seemed as though Maria was speaking of true moiety chiefs as among the Yokuts.⁴⁴ A bit of questioning revealed the fact that the chieftains in question are actually the heads of two of the most numerous clans of to-day. Torres is chief of the Wakwaikiktum clan, Levi of the Sewakil clan. The decimation of other clans and the breaking down of exogamy, the informant said, had given each of these chieftains a wider range of authority than either would have possessed in ancient times. This case among the Caluilla is of significance in interpreting the so-called "parties" among the Cupeño and Luiseño.

When a clan loses one of its members, people of various clans and of both moieties attend the funeral (*pemteutuwet*). A destruction of property takes place two or three days after the funeral. Both moieties participate. The image ceremony (*nukil*) which takes place six or seven months after a death, and may be held for one person, is likewise participated in by both moieties. In the making of the

⁴⁴ E. W. Gifford, *Dichotomous Social Organization in South Central California*, present series, xi, 294, 1916.

images reciprocity appears, the opposite moiety always performing this function for the bereaved moiety. A mourning ceremony of any sort is always in charge of a clan chief. The people who belong to the moiety of the deceased, both of his clan and of other clans of his moiety, gather money and property, which they turn over to the chief in charge when they prepare for the fiesta.

The following negative data, although of doubtful value, seem worth recording. Coachella informants in answer to queries stated that the Cahuilla lacked the toloache ceremony, the eagle ceremony, the sand painting, and Chungichnish beliefs of the Luisiño and Diegneño. It was also stated that in ancient times there were no ceremonies other than funerary and memorial ceremonies and a girl's ceremony called *autolil* in which girls of both moieties were initiated. There was no special individual whose duty it was to light the funeral fire. No moiety paints were used.

Each clan possessed special songs about its enemies. Maria Augustine of the Sewakil clan, used to sing against Captain Jim of the Kauwisikiktum clan. In such singing ceremonies members of other clans of the same moiety are said to have helped in the singing against people of the opposite moiety.

The Cahuilla are said to have a long migration legend, which consumes two or three nights in the telling. The following fragments of myths and beliefs have some bearing upon Cahuilla totemism and seem worth presenting. Two gods, akin in attributes to the Serrano Pakrokitat and Kukitat and to the Cupeño Tumaiyowit and Mukat,⁴⁵ are recognized by the Cahuilla. These are Temaiyowit, who is said to be the partner of, or is identified with, coyote, and Mukat, the partner of wild cat. The Milky Way is said to be the birthplace of these gods. These deities quarreled and Temaiyowit went into the earth. At the time he did so the earth was flat. It nearly capsized when he entered it. An eclipse of the moon which occurred during my visit was regarded as the result of the spirits of the dead trying to eat it.

All of the clans are said to have come from elsewhere in the time of the god Mukat. This agrees with the Morongo legend (see p. 182) of the movements of Serrano clans in the time of the god Kukitat, the Serrano counterpart of Mukat. The Cahuilla speak of Mukat as a *naa*, or leader, not as a net, or chief.

The eagle Aswetsci was the mythical leader of the Sewakil clan of the coyote moiety. In the mountains to the west of Coachella is a rock where this deity rested. The marks in the rock show the

position of his chin, elbows, and feet. The marks of his feet have been damaged by white people. Aswetsei "goes with" coyote, and may possibly be regarded as an associated totem. Clans of the wild cat moiety are said to have come from the northwest. The coyote clans are said to have come from the region of Riverside (also to the northwest), proceeding first to Sewiat, a (mythical?) locality in the San Jacinto Mountains. At Sewiat there is a cave with writing (pictographs?), also a "big rock house." This is beyond the house of the cannibal spirit Takwite on San Jacinto Mountain. The people who lived in ancient times have turned to rock at Sewiat. The gods died there. When the god Mukat died, people did not know which way to go. Mukat had appointed no chiefs. Each clan took its section of land. Each was named after its place of residence. The two gods originally named people and assigned to each family and individual his moiety.

Mukat made the sun (tamyat) from his heart. The sun is of the wild cat (tukut) moiety. It is a man who went to the sky. When the sun was made, Mukat could not hold it, for it was too bright. It slipped away and went up into the sky. The moon (menil) is of the coyote moiety. The moon is a woman and taught people a string game (cat's cradle?). Temaiyowit made menil, the moon.

Taxotesinigie, a wild cat man, had a sister. The sister was not yet ready to be named, although the god Mukat gave the names in the beginning. Taxtemyanwiteem, a coyote man, lived at Sewiat. Taxotesinigie sent his sister to marry him.

The following list of clans, living chiefly in the desert region northwest of the Salton Sea, was obtained from three informants. Next to nothing was obtained concerning the mountain Cahuilla and those of the San Geronimo Pass. The residence of each clan is given after its name. The ending -kiktum of many of the clan names is said to mean "living there." It is to be noted that none of these clan names is to be identified with the names of the present-day Cahuilla villages listed by Dr. D. P. Barrows⁴⁵ as follows: Malki, Sechi, Kavinish, Pal tewat, Pal seta, Temalwahish, Sokut Menyil, Lawilvan, Sivel, Tova, Wewutnowhu, Paehawal, Coahuilla. The

⁴⁵ In the form Mu'kat this name is applied by the Serrano to the "mountains south or southwest of Colton, probably the Sierra Santa Ana" (A. L. Kroeber, *Ethnography of the Cahuilla Indians*, Univ. Calif. Publ. Am. Arch. Ethn., viii, 34, 1900).

⁴⁶ *The Ethno-Botany of the Coahuilla Indians of Southern California*, 32, University of Chicago Press, 1900.

clans of each moiety are listed in geographic order from northwest to southeast.

WILD CAT MOIETY

1. Kilyiñakiktum. Mission Creek.
2. Kauwisikiktum. The clan of Captain Jim and his son Will Jim, Coachella informants. This clan lives also at Palm Springs, from which place the Coachella branch is said to have been derived several generations ago. Kauwis is said to be the place name of Palm Springs (compare number 17). Dr. Kroeber gives Kawishmu (in Serrano language) as "a small hill east of White Water, marking the boundary between the Wanupiapayum and the desert Cahuilla."⁴⁷
3. Wawitetem. Originally from Indian Well; later, southeast of Thermal; Mecca. The name is said to refer to wawie, mesquite tree.⁴⁸
4. Wamsinatamiyañahuteum. Tuba (Tova?) on northeast side of valley near Coachella.
5. Isilsivayauwiteum. South of Coachella.
6. Wankiñakiktum. South of Coachella.
7. Nandaiyum. Two miles south of Coachella at La Mesa. Ekwawinet was the name of the village.⁴⁹ The husband of Maria Augustine belonged to this clan.
8. Telkiktum. Two miles south of Coachella.
9. Aiyelmukut. South of Coachella. Lived with the Nandaiyum.
10. Panatkakiktum. Thermal; came from west to Thermal. Perhaps this clan is the same as Panasakiktum (no. 11).
11. Panasakiktum. Six or seven miles southeast of Coachella. Compare no. 10.
12. Tuikiktum. Southeast of Thermal.
13. Wakwaikiktum. Maulim, Toro. The mother of Maria Augustine belonged to this clan, which came from hot springs near Warner's Ranch, but was not Cupeño. Compare clan no. 22 of the coyote moiety (p. 191). The name is said to refer to the water. Wakwi,⁵⁰ the Luiseno name for either "El Toro or Cabezon," certainly is to be connected with Wakwaikiktum.
14. Tamolaniñiteim. Toro; Agua Dulce.
15. Antaatem. Martinez. Lived originally on the west side of the valley near Coachella.
16. Anwalim. Martinez. The "dog" clan; from awal, dog; a joke name (compare no. 22, Iswetum, "wolf" clan). The wife of Will Jim belongs to this clan.
17. Kauwispaumiyawiteum. Mecca. Kauwis is said to be the place name of Palm Springs (compare no. 2); paumiyawiteum is said to mean "living among the rocks in the mountains."
18. Walpuniidikiktum. Alamo. The mother of Will Jim and wife of Captain Jim belongs to this clan.
19. Palpuniviktum. Alamo.
20. Tamulakiktum. Back of Alamo.

⁴⁷ Ethnography of the Cahuilla Indians, present series, viii, 35, 1908.

⁴⁸ Dr. Kroeber, however, gives menyikie for mesquite; qwinyal for mesquite screw (present series, viii, 238, 1909).

⁴⁹ Dr. Barrows gives Temalwahish as the name of the modern village at La Mesa (*op. cit.*, p. 32).

⁵⁰ A. L. Kroeber, Shoshonean Dialects of California, present series, iv, 152, 1907.

21. Palkausinakela. Figtree John west of Salton Sea. This is the clan of a well-known Indian, Figtree John. The name is said to mean "little water coming from a spring." Pal piskalet means "water emerging."

22. Iswetum. Cahuilla Reservation. Plural of iswet, wolf. This name is said to have been given to the people of this clan because of the habit of "eating meat," and was applied as a nickname (compare no. 16, Auwalim, "dog" clan). Dr. Kroeber has obtained Luvus (probably Spanish lobos, wolf) as the name of a "place or tribe south, in vicinity of Cahuilla reservation."⁵¹ It seems likely that it refers to this clan. Both the Iswetum and Auwalim clans are also called Temañakiktum, "low place they lived," as they are believed to have originated at a place called Temaña.

COYOTE MOIETY

1. Wanikiktum. Banning. A Serrano informant gave "Pihateap" as the name of the original Cahuilla inhabitants of Banning.

2. Wavatum. This is the clan of Jim Pine, and Twenty-nine Palms is given as its home. Dr. Kroeber places Twenty-nine Palms in Serrano territory⁵² and one of my Serrano informants gave it as the home of the Serrano Tamwionots clan.

3. Amnaaviteum. Northwest of Palm Springs. This name contains the same stem as amnawat, large.

4. Haviñaviteum. Palm Springs.

5. Aatsatsum. Indian Well; Happy Point to Palm Springs. This is the clan of Ramon Gracia, a Banning informant. The name is said to mean "a good people." Cf. atei, good.

6. Wova-ikiktum. Indio.

7. Sewakil. Coachella. This is the clan of Maria Augustine, a Coachella informant. Sewakil is the name of a place south of Indio.

8. Ikonikiktum. Lived with the Nanhaiyum.

9. Taukatim. Two or three miles southwest of Coachella.

10. Sawalakiktum. Toro. Originally lived with the Nanhaiyum.

11. Masuviteum. Martinez. The name refers to a sandy place. The Cahuilla word for sand is ñateic.

12. Mumlaitim. Martinez.

13. Wiitām. Martinez. Perhaps the same as Wiyistam (no. 22). Wiitām is said to mean "grasshopper," a name applied to this clan because of the habit of eating grasshoppers.

14. Wansauwum. Martinez. This clan was once flooded out of its home; hence the name from wanyic, flood or stream. Perhaps identical with no. 15.

15. Wanisiwayan. Mecca. Perhaps identical with no. 14.

16. Teviñakiktum. Alamo.

17. Iviatum. Agua Dulce.

18. Kaunakalkiktum. Agua Dulce. This clan lived at a place where a shrub called kaunakal grew.

19. Sasalmayum. Agua Dulce.

20. Kauwistamilakiktum. Agua Dulce.

21. Hunavatikiktum. In the mountains south or southeast of Banning.

22. Wiyistam. San Ysidro. It seems likely that this is the San Ysidro in Cupeño territory (see p. 192). Wild cat clan no. 13 (Wakwaikiktum) appears to have come from the same region.

⁵¹ Ethnography of the Cahuilla Indians, present series, VIII, 35, 1908.

⁵² *Ibid.*, p. 37.

CUPESO

The information concerning the social organization of the Cupeño, or Agua Caliente Indians, was secured from Cupeño living on Morongo Reservation at Banning and from the main body of Cupeño concentrated at Pala, San Diego County.

The greater part of the Cupeño data was secured from three informants at Banning. These were Desiderio Laws, Mrs. Tomasa Annis, and her nephew Jose Miguel. Jose Miguel, a half-breed Cupeño, was the first of that tribe to take up his residence at Banning, where he married a Serrano woman of the Mohiyanim clan. The Chahuilla speak of the Cupeño as Kupañakiktum, meaning "living at Kupa," which was the name of the chief Cupeño village located upon Warner's Ranch. A second village of people speaking the same language was located at San Ysidro. It was called Wilakal.⁵³

The Cupeño are organized like the Chahuilla on the basis of exogamous moieties with paternal descent. These moieties are identified with the coyote (isil) and the wild cat (tukut) and are called istam and tuktum. The following myth fragment refers to the origin of the moiety totems.

In the beginning all was dark and void. A bag hung in space. In time it opened out into two halves. From one half came coyote (isil), from the other came wild cat (tukut). They immediately fell to arguing as to which was the older. Coyote was the older because he spoke first. People had been created, but they could not see. They were in mud and darkness. They heard coyote call first and they knew that he was older. The people were not in the bag with coyote and wild cat. They arose from the mud and started to sing. Shamans to-day understand coyote, because people heard him first. The moieties came from the beginning.⁵⁴

Coyote's totemites have the reputation of being quick and active like coyote himself. Wild cat's totemites on the other hand have the reputation of being slow and lazy. The coyote totemites jokingly tell the wild cat people that they are slow and lazy. The two totems are believed to have been men or gods originally, later they became animals. Some informants identified coyote with the god Tumaiyowit and wild cat with the god Mukat. These gods led the people from a northern home. In dances the men and women of the coyote moiety dance in two groups on one side. Wild cat men and women do the same on the other side.

⁵³ Mrs. Julia Johnston, a Pala informant, stated that she was from that village and that the name of her "tribe" was Toteil.

⁵⁴ The last sentence was in response to a question how the moieties originated.

The totem is called wala, which means great-great-grandparent or ancestor. There is no belief in actual descent from the totem.

One Cupeño informant said, that although it was improper for people of the same moiety to marry if they were both of the same tribe, it was not improper for people of the same moiety to marry if they were of different tribes, as for example Cupeño and Cahuilla. This is a reversal of the Yokuts custom in which moiety exogamy is adhered to in intertribal marriages.

In addition to the division into moieties the Cupeño are divided into seven patrilinear clans, four of the coyote moiety and three of the wild cat moiety. Moiety exogamy was the only requisite in marriage, however. A man selected his mate from any one of the clans of the moiety of which he was not a member. The clans are called "parties" by the natives, possibly evincing a different attitude of mind, ceremonial rather than genealogical, from that of the Cahuilla who speak of their clans as "tribes." Each Cupeño clan or party is called a nout, as is its hereditary chief. The Cupeño clans of the coyote moiety are Potamatoligie, Teañalañalie, Kauval, and Nauwilot. The wild cat clans are Auliñawie or Auliat, Sivimoat, and Djutnika. These seven names represent the maximum number of clans mentioned. All seven were not mentioned by any one informant. Certain of the above seven clans are said to be equivalent to certain others. The statements in this regard may be reduced to the following form:

Kauval = Teañalañalie = Nauwilot.
Djutnika = Auliñawie = Sivimoat.
Potamatoligie.

This reduces the number of "parties" to three, for the term "party" is used by the natives indiscriminately for a clan or for a group of fused clans. With the fused or combined clans just listed the native use of the word "party" is not far amiss and will be employed in this paper. "Clan" can only be used for one of the original seven theoretically consanguineous groups. At Pala at present three is the actual number of parties which exercise ceremonial functions. These parties are Auliñawie of the wild cat moiety with which are joined Djutnika and Sivimoat, Nauwilot of the coyote moiety with which are joined Kauval and Teañalañalie, and Potamatoligie of the coyote moiety. The chiefs of these three parties at Pala are Juan Auliñawie of the Auliñawie party, Francisco Laws or

Nauwilot of the Nauwilot party, and Cecilio Potamatoligie (= Black-tooth) of the Potamatoligie party.

The statements of informants as to the uniting of these clans into parties are quite significant, as they throw light upon the changes which have probably taken place in Luiseno society. Djutuika is said by some informants to be only a family name now, the people of that name attaching themselves to the Sivimoat, who in turn follow the lead of the Auliñawie in ceremonial matters. Sivimoat has no chief, since decimated in numbers. Members of the Sivimoat clan join the Auliñawie, who are of their moiety, in all ceremonies. When I was at Pala in January, 1917, a ceremony was scheduled by the Auliñawie clan for a week later. Cimon Sivimoat of the Sivimoat clan told me that his people would take part with the Auliñawie clan under the leadership of Juan Auliñawie. Cimon said that he was now a member of Juan Auliñawie's party. Years ago, he said, the Sivimoat clan had its own chief, but since his death and the decimation of the clan, the members had joined the Auliñawie party. Sivimoat is a "family" name now as well as a clan name. The Teañalañalie have no chief, since they are decimated in numbers. In ceremonies they join the Nauwilot, who are of their moiety.

The evidence concerning the uniting of the Teañalañalie, Nauwilot, and Kauval is perplexing in the light of information furnished by Mrs. Tomasa Annis. Mrs. Annis stated that her father's "family" name was Kauval. Her brother is Francisco Nauwilot or Laws, the chief of the Nauwilot "party." With paternal descent it would seem that the brother's name ought to be Kauval instead of Nauwilot. Mrs. Annis said that the three names, Teañalañalie, Nauwilot, and Kauval were all names for one and the same party. She said that the oldest name of the party was Kauval, that the next name was Teañalañalie, while Nauwilot is only a nickname. On the other hand, Cecilio Tiperosa, an old man at Pala, said that Nauwilot and Teañalañalie were not equivalent. The three names probably stand for three original clans as indicated above.

An outsider of another tribe who came to live with the Cupeno might join any party he liked, though it is quite likely that his moiety would be the deciding factor as to which party he did join.

It is clear that we have two organizations in Cupeno society in addition to the exogamous moieties. First, there is the clan with paternal descent and with an hereditary chief called a nout. Second, there is the party, as the natives call it, which has one of the old

clans as a nucleus and has drawn to itself the remnants of the clans which have diminished most in numbers. As has been already pointed out (see p. 187) some such amalgamation of clans has taken place at Toro among the Cahuilla. No information regarding a localization of Cupeño clans was obtained.

Meanings for only two of the Cupeño clan names were forthcoming. Potamatoligie is said to mean "black tooth," and Nauwilot to mean "body lice." Auliñawie would seem to have some connection with blood, the word for which in the related Luiseño language is *oula*. Furthermore, *aulinil* is the Cupeño name for the girl's puberty ceremony.

The following list of names, with the clan to which each individual belongs, seems worth recording.

Juan Maria belongs to the Sivimoat clan.

Juan Maria's wife, Ramona, belongs to the Teañalañalic clan.

Unon Sivimoat belongs to the Sivimoat clan.

Francisco Laws belongs to the Nauwilot clan.

Desiderio Laws, nephew of Francisco, belongs to the Nauwilot clan.

Cecilio Tiperosa belongs to the Auliñawie clan.

Juan Auliñawie belongs to the Auliñawie clan, of which he is chief.

Mrs. Julia Johnston belongs to the Auliñawie clan.

Mrs. Julia Johnston's mother was of the Nauwilot clan.

Mrs. Tomasa Annis, sister of Francisco Laws, belongs to the Kauval clan.

Ambrose and John Ortega are of the Potamatoligie clan.

Each hereditary clan chief (*nout*) has an hereditary assistant called *kutvovoe*. The word *kutvovoe* evidently refers to *kut*, fire. Carrying messages for the chief, supervising the preparation of food, and receiving guests seem to be the chief duties of the *kutvovoe*. Juan Auliñawie, chief of the Auliñawie clan, has as *kutvovoe* Cecilio Tiperosa. Mariano Blacktooth, chief of the Potamatoligie clan, has as *kutvovoe* Ambrose Ortega. Francisco Laws, chief of the Nauwilot clan, acts as both *nout* and *kutvovoe*, as his *kutvovoe* died without a successor and his clan is small and dwindling in number. There was yet another official, called *paha*, whose duties were restricted to initiation ceremonies. He officiated at the *toloache* ceremony as assistant to the *toloache* chief (see p. 196) and assembled the people when an image or other important memorial ceremony was planned. When Juan Auliñawie gives a ceremony he invites the other two parties, Potamatoligie and Nauwilot. The chief of each of these parties does the same when he gives a ceremony. The three wild cat clans, Auliñawie, Djutnika, and Sivimoat, always act as a unit

in ceremonial matters. Opposed to these in such matters are two groups of the coyote moiety, one the Potamatoligie, the other composed of Kauval, Teañalañalie, and Nauwilot. The father of one informant, Mrs. Tomasa Annis, was chief of the Teañalañalie clan. He inherited the position from his paternal uncle.

There were no moiety chiefs. There was recently, however, a village chief who was elected annually. There was no such chieftain in ancient times, however.

Each clan had songs about its enemies. The ceremony in which these were sung is called piniwahat. Dancing formed a part of the ceremony.

When a fiesta is to be given by a coyote clan or party, the members first meet and discuss the matter. At the fiesta, they often cook for and serve the wild cat guests. On the other hand the food may be brought by the clansmen to their kutvovoe, and he turns it over to the kutvovoe of the guest clan, or party, the members of which prepare it. It is eaten by the guests in the "ceremonial house." The hosts eat at home.

In order to ascertain the extent of the ceremonial functions of the clans and parties, informants were questioned with regard to the various ceremonies common to the Cupeño and their neighbors, the Luiseño and Diegueño. Descriptions of these ceremonies among the Luiseño have been published by Miss Du Bois⁵⁵ and among the Diegueño by Dr. Waterman.⁵⁶

The toloache ceremony is called manit paninil (=toloache drinking). A special chief, also called nout, had charge of this, independent of the clan chiefs. A man of the Teañalañalie clan held this position, which was said to be inherited in the male line and restricted to that clan. His assistants, who taught the initiates to dance, were of various clans and of both moieties. The toloache chief selected the boys for initiation.

There was said to be a special teacher for the whirling dance (pukavihat). He was a coyote man of the Potamatoligie clan and taught only Potamatoligie youths except that on one occasion, the informant recollected, a Teañalañalie youth was taught.

The girls' ceremony, ölmika or aulinil, was a clan affair and not a tribal affair as was the boys' toloache ceremony. Each clan

⁵⁵ The Religion of the Luiseño Indians of Southern California, present series, viii, 69-186, 1908.

⁵⁶ The Religious Practices of the Diegueño Indians, present series, viii, 271-338, 1910.

"roasted" its own girls, inviting other clans to witness and to sing and dance at the ceremony. In dancing in a ring around the pit in which the girls were placed, the wild cat people kept together, as did the coyote people. All, however, formed a continuous ring. It was stated that the girls' ceremony took place at the time of the image ceremony.

If a coyote clan or party is to kill an eagle, the wild cat people are invited to the ceremony. The feathers taken from the bird are used for dance paraphernalia. A young eagle is often captured and reared. In winter people will go hungry themselves in order to feed the eagle.

If a Cupeño man marries a woman of another tribe, for example a woman of Saboba, and later a child born of this marriage dies, he must give an expensive mourning ceremony to which he invites the Saboba people.

In the matter of mourning ceremonies the clans exercise truly reciprocal functions. A week after a death a ceremony called *pisatuil* is held at the "assembly house." The people sing all night. First the people of the opposite moiety sing for half of the night. Then the people of the dead person's clan or party sing for the second half of the night.

A month or two after a death, the ceremony called *süshomnil* is held. In this ceremony property is burned and distributed by the clan of the deceased, his near relatives giving the most. The people of the opposite moiety seize what they wish when the fellow clansmen of the deceased throw pieces into the air as offerings. The *kutvovoe* of the bereaved clan passes the property to be given away to the *kutvovoe* of a clan of the opposite moiety, who divides it among his clansmen. The *kutvovoe* of the bereaved clan builds the fire to burn the offerings. The people dance contra-clockwise around the fire, especially while the offerings are burning. If a person of another tribe, Caluilla or Luiseño, steps into the line to dance, presents are given him. About the fire both wild cat and coyote people dance.

The most important memorial ceremony is the image ceremony or *nañawil*. It takes place every few years, and often it is held for four or five dead, or for all who have died since the preceding *nañawil*. Before the ceremony is announced, each clan discusses the matter with its bereaved families. If a family is not quite ready, the ceremony is postponed. The *nañawil* is given by only one moiety at a time, namely the moiety of the deceased. The clan or clans of

that moiety furnish money and property for the ceremony. The opposite moiety is invited.

The relatives of the deceased make the heads of the images which represent the dead. They also gather the material for the images. This consists of bundles of *Epicampes* grass called masbat. If there are four dead four bundles of grass are supplied. These bundles, together with the heads of the images, framework, and clothing, are given to the people of the opposite moiety to be put together. The chief of a clan or party always has a supply of masbat at his house. Each family also has some on hand.

The ceremony occupies three days and three nights. Men sing at night, women during the day. If the coyote moiety is bereaved, the wild cat men sing during the first half of each night, the coyote men during the second half. A similar order is observed in the singing of the women during the day.

On the first and second nights the materials for the images are collected in a pile. On the last morning of the ceremony the people of the opposite moiety make the images, each kutvovoc assigning the work to his clansmen. They and their relatives help him to make the images. Relatives of the dead person, whose image he makes, pay him while he is putting the image together. If the deceased has numerous relatives, he receives considerable money; if few, he receives but little. The images are put together in a very short time. They are completed before nine o'clock in the morning. The people of the opposite moiety carry them, while the bereaved moiety scatters money, food, clothes, and baskets. These are collected by the opposite moiety. The images are thrown on a fire which is lighted by a kutvovoc of the officiating moiety. The burning takes place out of doors in a circular pit. The kutvovoc who lights the fire is paid for that service by the bereaved moiety. The ceremony ends with seven or eight songs sung by the combined women of both moieties. The material given by the bereaved moiety is divided by the kutvovoc of the recipient moiety at the end of the ceremony.

By the Cupeño the electric fire ball is called Tur, a name quite different from that used by the other Shoshonean groups of southern California, among whom this apparition is usually known as Takwite or Takwie. The Cupeño like the other groups consider Tur to be a spirit, who dwells in a large rock high up on Mount San Jacinto. People who approach his house must do so quietly. The Indians report that white people who believe that there is gold under the rock

have made several attempts to obtain it. Each time Tur has appeared and driven the treasure seekers away.

Two brief Cupeño myths were obtained. One tells of the two deities Tumaiyowit and Mukat. The other recites the annihilation and regeneration of the Cupeño and is quite parallel to the Morongo clan legend (see p. 182) of the Serrano.

Tumaiyowit and Mukat.—The gods Tumaiyowit and Mukat created the world and all that is in it. They quarreled and argued as to their respective ages. They disagreed on many things. Tumaiyowit wished people to die. Mukat did not. Tumaiyowit went down to another world under this world, taking his belongings with him. People die because Tumaiyowit died.

Mukat, who remained on earth, finally fell under the ill-will of mankind, because he caused quarrelling and fighting. Each evening he put the people to sleep by blowing tobacco smoke from his pipe. When they were fast asleep, he arose stealthily, stepped over them, and went to the ocean to defecate. Each time he heard his excrement strike the ocean floor and he knew that all was well. Three times he would hear the sound. Then he returned. When the people awoke they found him in his place. They tried every possible means to discover when and where the god attended to his natural functions, but to no avail.

Finally a very slim lizard hid on the god's cane. The god did not see it. The lizard discovered where the god went and what he did and reported to the people. Then they set the frog to bewitch the god. The frog hid in the ocean, and, as the god defecated, swallowed his excrement. The god, not hearing the usual sound, knew that something was wrong. He poked downward with his cane, which rubbed along the back of the frog making the marks which we see there to-day. The god Mukat became ill and died. When ill he told the people, "If I die to-day or to-morrow, burn me. Do not let coyote come near me, for he will do an evil deed."

Upon the death of the god his body was burned. The people sent coyote to fetch wood for the funeral pyre, for they feared that he might eat the body of the god. Coyote departed. He was away nearly a day. As soon as he left, they started to burn the body. The fire drill and hearth with which the pyre was ignited, were two men. The body of the god was burning when coyote reached the end of the world. He saw the smoke and hurried back. When he arrived at home all of the body had burned except the heart, which the people kept turning to make it burn. When coyote arrived the people were standing close together about the pyre. He said, "Brothers and sisters, let me see this. He is my god." They only stood the closer together, but coyote jumped over them and seized the heart. He ran north, where he ate it. Where the blood dripped there is gold. The people pursued in vain. Coyote looked back as he ran with the heart in his mouth. That is why a coyote, when running away always looks back to this day.

The people who stood around the pyre became trees, some tall, others short. It was over the short people that coyote had jumped. The people pursued coyote northward. Across the mountains in that direction the trees stretch to-day. They are the people who pursued coyote. Some have been knocked down, just as coyote knocked down the people.

The Annihilation and Regeneration of the Cupeño.—The people came from the north under the leadership of Tumaiyowit and Mukat. Different groups

settled here and there. The Kauval settled at Saboba.⁵⁷ The Cupeño first settled three miles southwest of Kupa. They brought with them a green, hair-like water plant as their (hot) water supply. Wherever they placed this they had boiling water. From their first place of settlement they saw that the sun always shone at Kupa, so they moved over there. At their first settlement the sun went down early and it was cold.

The Cupeño were once completely annihilated by enemies. Only the Diegueño wife of one man and his infant son escaped the massacre, which was carried out by seven or eight surrounding tribes. The attackers surprised the Cupeño, clubbed them to death, and burned their houses. They called to this Diegueño woman to come out of her burning house. She did so carrying her babe in her arms. She said it was a girl baby and both she and it were spared. It was really a boy.

The baby boy who thus escaped the massacre was of the coyote moiety Hōböyak was his name; it means "capable of doing anything."⁵⁸ He grew amazingly. His mother took him to San Felipe. He hunted and killed rabbits, but others took them from him. His mother asked, "Cannot you kill something, mice or something?" He told his mother that others took his game from him. She informed him that the San Felipe people were not his kin. She said, "Kupa is your home, but your kin have all been killed. Over there is your water, your hot water, your rabbit,⁵⁹ your eagle."

When his mother said this, the boy replied, "I am going to see my eagle, my water, my rabbit, and my home." He fell to thinking about it and people saw that there was something wrong with him. They asked his mother what the trouble was. The woman told her son of relatives at Saboba, men of his moiety,⁶⁰ the coyote moiety. She pounded all sorts of seeds for food.⁶¹ One night she and her son stole away.

From Saboba the people saw the mother and boy approaching when they were as far away as Hemet. [Hemet is four miles from Saboba.] They said, "There come a man and his wife. Who can they be?" An old man, who had been indoors until now, stepped out and asked who came. He looked and at one glance knew that the others were wrong. "They are a mother and her son," he said. He recognized them while they were still as far away as Hemet. The woman told the Saboba people of the fate of the people of Kupa.

Hōböyak killed more rabbits than any one else. He employed two kinds of throwing sticks in hunting rabbits. One was straight and is called wakat; it was an ordinary stick broken from a bush. The other was the curved throwing stick called nilyat. The mother and son remained at Saboba for a while. The young man was restless. He wished to go to his own country. Again the mother pounded seeds, and again they stole away at night. They went along the mountains toward Cahuilla Reservation to Wiatava. They remained there a while. One day while the mother pounded seeds Hōböyak slipped away. She had always kept him in sight before. He ran far and found a bear's tracks. He returned and told his mother.

"Mother, you cannot guess what I saw." She named everything except the bear. The young man answered, "No," to each. She could think of no other

⁵⁷ Represented there by Jesus Jauro and relatives.

⁵⁸ It is said to be also a term for shaman; pul is the usual term for shaman.

⁵⁹ A mythical white and red spotted rabbit about three feet high which dwells upon Rabbit Peak. When the rabbit appears, the mountain shakes and trembles and there is a rumbling noise.

⁶⁰ The Kauval. See above, also footnote 57.

⁶¹ Pulverized wild seed is called poiye, and is mixed with water when eaten.

animal. Then she said, "There is nothing else." The young man said, "The tracks were like those of a man." The mother said, "That is a bear." Hōbōyak said, "That is the one. Mother, I am going to kill that bear." She objected, saying that the bear was dangerous and killed many people. Hōbōyak made a bow and arrows and slipped away again. He tracked the bear and found it. They fought. The bear jumped repeatedly at the youth, but he always stepped aside. At last as the bear went by him, he drove an arrow into its heart. He skinned the bear and took home the hide.

He carried the hide under his arm and showed it to his mother. He said, "I will show you something else." He told his mother to sit on the bear hide behind him. It became a bear and carried them. He stopped the bear and it became a hide again.

"Mother, I am not afraid to attack anyone. With you and my bear, we can kill many people. We shall now go straight home." Then they went towards Kupa. The mother retarded progress as much as possible. When close to Kupa, Hōbōyak stole away for a hot water bath.

The mother objected to approaching any closer to Kupa. Hōbōyak remonstrated, "Mother, I want my place. I have seen my eagle (aswut), my rabbit (suic)." They camped twice in unsatisfactory places. Then they came to a tongue of land, two miles west of Kupa, from which they could see a long way on both sides. From there Hōbōyak went daily to a place about half a mile from Warner's Ranch, where women gathered seed. Women saw him daily and reported to their families, who would not believe them, because they knew that no one lived at Kupa. At last a man came to see if the reports of the women were true. He saw the young man pass. Each day, however, Hōbōyak had a different appearance, thus making the spectators think that many people lived at Kupa.

All of the surrounding peoples planned to kill the Cupeños whom they imagined to live again at Kupa. As the people watched, Hōbōyak appeared in different forms always from the same hut. They approached closer under cover. From his hill (the tongue of land which was about fifty feet high) Hōbōyak saw them. He approached them, carrying his bear skin and asking them to wait. When close enough, he slung the bear skin at them. It became a real bear and attacked them. Hōbōyak shot them. His mother clubbed the wounded. All but one of the attackers were killed. He told the survivor to go and tell his people that the score had been settled. Hōbōyak killed his last man by striking his head against an oak tree. The tree and place to-day are called Tūbasalpokbō, meaning "where one man's head was pounded."

Hōbōyak and his mother now moved to Kupa. He married two Luiseño sisters from Rincon (?). From this marriage came the Cupeño of to-day.⁶²

LUISEÑO⁶³

The Luiseño have neither moieties nor totems. They possess, however, localized patrilinear clans or families on the one hand, and parties or religious societies on the other.

⁶² In answer to my question the informant said that the wild cat moiety came later to Kupa, after Hōbōyak established himself. It was there before the massacre and destruction, however.

⁶³ Data were secured at Rincon, at Pichanga where the Temecula people are now located, and at Salobá near San Jacinto.

First, as to the families or clans, of which a list of eighty-one was obtained.⁶⁴ One informant, Gregorio Omish, whose father was an Omic and mother a Sovenic, said that he might marry any women so long as she belonged to neither of these groups. Such being the case it seems quite clear that, if these groups are clans, they are rather small, or else that the sentiment against the marriage of individuals related in any degree is exceedingly strong. Among the Serrano we have noted that the Morongo and Mohiyanim clans always intermarried, which of course means that they were of considerable size. In fact, they must have been of sufficient numerical strength to allow of continuous intermarriage without arousing the sentiment against incestuous marriage. With the Luiseño each group may have been of such small size that continuous intermarriage between any two involved incest from the native's point of view. The Luiseño groups certainly bear a resemblance to the numerous Cahuilla clans. Since they are double in number, they perhaps represent the Cahuilla fabric of clan organization much more finely spun. As with the Cahuilla each group is dignified by a name. The names resemble the Miwok personal names⁶⁵ inasmuch as they are chiefly verbs or derivatives of verbs. They lack the totemic connotations of the Miwok names, however.⁶⁶ Judging from the tendency of other Shoshonean groups and of the Yuman groups in southern California to name groups of kindred or quasi-kindred as clans, it seems clear that this Luiseño naming of families or clans is a manifestation of the same tendency, perhaps carried to a greater degree of refinement and possibly stimulated by European contact. Whether we should call the Luiseño groups "clans" or "families" is a question which can be definitely settled only with ample genealogical data.

Certain families or clans possess hereditary chieftains at the present time. Certain others are said to have had such chieftains in former days, but now lack them because of decimated numbers. There is no evidence to show that each of the eighty-one groups had a chieftain, however. It was stated that in former times those groups which had chiefs were "parties" in themselves, which undoubtedly

⁶⁴ By one informant the word "tribes" was used for these groups, although the native term applied *tuñlam*—actually means "names." By another informant the term "families" was applied, although the native term *use-kamalum*—actually means "children." For "tribes" the second informant gave *keteam* (cf. *keteamkawie*, southerner, applied to the Diegueño), which he said applied only to linguistic groups like the Cahuilla, Cupeño, and Diegueño.

⁶⁵ E. W. Gifford, *Miwok Moieties*, present series, xii, 116, 1916.

⁶⁶ Some of the Luiseño have Spanish names which are translations of their Indian family names.

means that they were true clans and not families and performed all of the functions of the present-day party among the Luiseño.⁶⁷

The family or clan names follow, arranged by locality.⁶⁸ The late P. S. Sparkman's manuscript dictionary of the Luiseño language has been consulted in verifying and ascertaining the meaning and derivation of the names.

RINCON

1. Onic. Said to mean blood; cf. aulā, blood, and aumawie, bloody.
2. Kalāk. Cf. kalek, soon, presently, quickly, in a short time, speedily, without delay.
3. Miteax. Rammed, as into a hole. The Spanish name of this family is Tapador (one who stops, shuts up).
4. Nesikat. Scraping off a little, as taking a little off of the top of a pile of earth. Nesi, to graze, to touch lightly in passing; -kat, recent imperfect or habitual agent.
5. Covenie. Mean, ugly, cranky. Cf. cowoie, someone to be afraid of.
6. Teevie. Breaking by pulling.
7. Kewewie. Fox. Mentioned by a Saboba informant as the name of a Rincon family.

LA JOLLA

1. Cuvie. Rustling noise made by disturbing dry leaves. Cuvie, making a rustling noise.
2. Agit. Said to mean a hole in the ground, like a gopher's. The mother of Vidal Mojada was of this family.
3. Amagn. Said to mean branch of a tree.
4. Wasax. Stretched.
5. Ayuwo. Wet. Sebak was given as another name for this group.
6. Paliwac. A ground fungus known as "puff ball."
7. Awayu.
8. Tovak. Said to mean sediment from dirty water.
9. Teinteinlie. Said to mean to pound with a pestle.
10. Wivie. Said to mean cutting around the edge of something, as of a piece of cloth.

PAUMA

1. Maxlaña. Maxwal, fan palm; -ña, locative.
2. Keñie. Ground squirrel.
3. Cokteum. Said to mean to scratch flesh a bit with nails. Cf. coki, to pinch or scratch. Another informant gave the meaning as "mean people."
4. Pauval.
5. Ayal. Cf. ayalie, knowledge.
6. Teat. White owl.

⁶⁷ Felix Calac mentioned the Miteax "family" as originally having been a "party" and as having had a chief. They came from Puerta Cruz. Now there are only Manuel Miteax and his father left at Rincon and a few others at Pala. Manuel and his father belong to no party at present.

⁶⁸ J. A. Marino, a half-breed (Spanish-Cupeño) at Rincon said that his mother's father (a Cupeño) was named Nuka. Whether it was a personal name or group name could not be ascertained.

PAUMA RANCHO

1. Cwax. Wake up.
2. Poyoña. Said to mean feeling a slight pain after a severe one, as when pain of cut finger eases.

CUCA

1. Aekat. Bather. Family of Jose Albañas, who belongs to Anoyum party.
2. Mokwakwis. Said to mean to walk around a post; to make a round hole. Perhaps in part from moni, to travel.
3. Pautovak.
4. Camnim. Perhaps from camki, to gather grass.
5. Wasaiyik. Said to mean to pull on something.
6. Noiyyikas. Said to mean making shade in hot weather.

PALA

1. Luvakwis. Said to mean to wilt; to become dry. Cf. laviki, to wither.
2. Teori. Said to mean rolling a round object on the ground. Possibly really teari, to tear; or teorii, to cut much wood.
3. Wakpic. Broom (for sweeping).
4. Sokisla. Said to mean living forever. The name resembles the word cakicla (the common nettle).

PICHANGA

1. Teauwi. To chase or scare up game. This is really a Rincon family with a branch at Pichanga.
2. Hakyuk. Said to mean hungry. Cf. hakwli, to be hungry.
3. Tenkul. Perhaps from tenki, to fill tight.
4. Eñla. Salt.
5. Wilix.
6. Pahanim. Budding. Compare pahankie, a kind of cane grass.
7. Oyot. Thief, robber.
8. Kowak.
9. Atatei. Bark of tree.
10. Tosamal. A small plant with yellow flowers, *Bacria gracilis*.
11. Koeak. Said to mean sweet. Compare kocahat, sweet.
12. Wavie. People piling food for fiesta; literally, the bringing or taking away.
13. Cahama. Said to mean "in the white willows." Compare cahamawie, abounding with white willow; cahat, white willow.
14. Makara.
15. Canat. Asphaltum.
16. Bahovie.
17. Totmani. Rolling stone. Tota, stone; mani, to roll something heavy. An aged woman of this family named Stefana said that Totmani had been transmitted as the family name from before the time of her great grandfather.

SAN LUIS REY

1. Tuvotwie or Tovotmuc. Said to mean something which has been ground to dust or flour. Towut, fine dust.
2. Atulu. Said to mean a plant growing abundantly. Cf. atoula, the trunk of a tree, rootstock, or bulb of a plant.

3. Halixliña or Haliisliña. The first is said to mean walking pigeon toed, the second standing stooped or hump-backed with arms slightly flexed. Mr. Sparkman gives pepehat for pigeon-toed. Possibly from halahali, to be loose.

4. Ketekt. Said to mean trousers pulled up, or short. Compare ketektish, short.

5. Siñle.

6. Towie. Ghost.

7. Karik. From kari'i, to eruct.

8. Pevesañahoiket. Said to mean a tall water plant (tule) swaying in the wind. Pevesae, tule. A man named Pevesañahoiket or Havilakwa was chief at San Luis Rey.

9. Keruskat.

10. Totomal. Small stone.

11. Saume. Said to mean sound made by a sea shell at the ear.

12. Lavik. Wilting. Laviki, to wither.

13. Nosis. Said to mean talking low when sick. Nōni, to make a low murmuring sound.

14. Nosis.

15. Panowa. Possibly equivalent to panavut, the name of a plant which grows near the coast.

16. Yawahaisan.

17. Kauwüt.

18. Tovita. Tovit, species of small rabbit.

19. Kelita. Perhaps from keli, to stir.

20. Mapulis. Said to mean sitting in hunched position with hands in front of face. Mat, hand.

SABOBA

1. Liteie. Slipping.

2. Pokhat.

3. Amurax. Curled, as the leaves of a plant from the heat.

4. Tukwut. Mountain lion. Spanish name is Leon. The Indian name of the father's father of Pauline Leon was Wowis, said to mean a trail. This man's brother's son had the same name. It seems impossible to distinguish whether it is a family name or merely a transmitted individual name.

5. Apapas. Said to mean round like an olla. A Cahuilla family. The name is said to be of Spanish origin. It may be the Spanish form of pavahat, having the shape of a sphere.

6. Jauro. A Cupeño family of the Kauval party.

7. Teipmal. A species of owl; perhaps the pygmy owl, recorded by Mr. Sparkman as tukyapal. Spanish name is Lechuza. The family is at present represented by Antonio Lechuza. It is also said that Antonio and his father's sister, an old woman named Soledad, are of the Gaupsi (a small shrub with berries liked by the birds). It seems possible that Gaupsi is really the original Indian family name and that Teipmal is simply a translation of the Spanish Lechuza. On the other hand Gaupsi may be the name of one of the three Saboba parties (described below) for which no names were obtained.

8. Yuloteuwat. Morning Star. Spanish name is Lucero. Mr. Sparkman gives Eluteax as the Luiseño name of Venus, the morning star.

NO LOCATION

1. Anaa. Said to mean burnt.

A Luiseño party⁶⁹ consists of a clan or family, with an hereditary chief, to which other numerically weak and chieftainless groups have attached themselves. It is of the same character as the party among the neighboring Cupeño. The purpose of the party is ceremonial, hence it might well be called a religious society. Membership in a clan is of course a matter of birth, but membership in a party is a matter of choice on the part of each individual. The choice seems to be wider among the Luiseño than among the Cupeño, where we have seen that moiety limits the number of groups with which an alliance may be made. The party, that is, the nucleus clan with its accretions, is called *noot* or *nota*,⁷⁰ which is also the term for "chief." How far the party is the result of decimation due to European contact and to what extent its development may be correlated with the Chungichnish ritual are questions which must be left in abeyance.

The chieftainship is hereditary, passing as a rule from father to son, the old chief selecting his successor from among his sons. A party at Saboba, however, has a chieftainess, who inherited her office. Her husband acts for her in most matters. At Rincon there is also a chieftainess, who has succeeded her husband during the minority of her son. In case a chief dies suddenly without indicating his successor, one of his relatives is selected. The business of the parties (*nonotum*) seems to be entirely ceremonial, "making fiestas" as the natives express it.

Anyone who wishes can join a party. Blood relationship to the family or clan in which the chieftainship is vested is not necessary. Furthermore a person may quit one party and join another. If a member thought that his party did not carry out properly the ceremonies for one of his deceased relatives, he might become angry and resign. A person belongs to only one party at a time. When a member dies, his party makes a ceremony and burns his clothes. A woman becomes a member of a party with her husband. Usually a man belongs to the party of his father, but he may quit it and join another if he wishes. Women may join, but children may not. A

⁶⁹ Both Miss Du Bois and Mr. Sparkman mention "clans" or "parties." At one time they say that membership is a matter of birth, at another that it is a matter of choice (C. G. Du Bois, *The Religion of the Luiseño Indians of Southern California*, and P. S. Sparkman, *The Culture of the Luiseño Indians*, present series, viii, 1908).

⁷⁰ The plural of *nota* is *nonotum*. In speaking of one member of the Anoyum party, *anofiahue* would be used. *Anoyum* means the members collectively. *Noot* *anofiahue* would be "chief of the Anoyum."

person must be adult to join. There is no initiation. A prospective member consults with the chief of the party he wishes to join.

When the chief of a party decides to give a ceremony, for example the clothes-burning ceremony, he calls his people together. On the first night they alone are present; later, people from many places come.

At Rincon there are four parties which originally lived at Cuca, at San Luis Rey but one, at Pauma three, at Pichanga two, at Saboba three. The parties at Rincon formerly numbered seven. The present parties there are listed below.

1. Anoyum is the name of one party of which an old man named Jose Polonio Omish is chief. All of the Omie belong to this party. The Tovik and Suvie also belong to the Anoyum party. They once formed separate parties, but their chieftains are dead, so they have attached themselves to the Omie. Anoyum (ano, coyote; -yum, plural, probably here with the force of "people of"), which refers to the coyote, is a name given this party because of greediness at "pescado (fish) fiestas." The proper name for the Anoyum party is Keiteum, "ground squirrels."

2. Ivañawie is the name of a second party at Rincon. Its nucleus is found in the Calac family or clan, all of whom belong to this party, Jose Calac being the chief. Ivañawie (iva, to be set apart; -[ñawie, partitive),⁷¹ which means "sitting apart or separate," is said to be only a nickname for this party, applied because of such a habit at fiestas. Naxyum is the proper name. The ancestor (piwi) of the Calacs, from whom this name was derived, was called Naxnaxkwis, a name derived from naxat, walking stick. From him sprang all of the Calacs. Other families besides the Calacs belong to this party. Jose Calac, the chief, is the cousin (father's brother's son) of Felix Calac, an informant.

3. Exvaiyum or Temekwiyum. Both names of this party refer to Temecula and may be translated "Temecula Party." Exvaiyum is from exval, sand, and -yum, plural, probably here with the force of "people of." Temekwiyum is from Temeku, Temecula, and -yum, probably with the meaning "people of." Felix Šesikat is chief of this club, although his mother, Carmen Šeskiat, has acted as regent during his minority.

4. Señyam or Seveyum. The first name refers to señat, gravel, a name said to have been applied because the nucleus clan of this party came from a gravelly place. Bruno Sovenie is chief of this party. One informant said that Señyam was the name of a San Luis Rey party, but elsewhere it was stated that there was but one party at San Luis Rey, the Kaiteam.

5. Navyam (navut, prickly-pear cactus; -yam, plural, probably with the force of "people of") or Ciwaxum was the name of a fifth party, now extinct, of which the Ciwax family held the chieftainship.

At San Luis Rey there is said to have been only one party, which was called Kaiteam, from Kaiyite,⁷² said to be the place name of

⁷¹ The Luiseno dictionary, compiled by Mr. Sparkman and to be published in this series, was used in checking the meanings of the terms obtained.

⁷² Recorded as Kheish, Gheech, and Ghesh by Dr. Kroeber (present series, IV, 147, 1907). Kaiteam is probably a form of Khecham, a name sometimes applied to the Luiseno (*ibid.*, p. 145, 1907).

San Luis Rey. All of the families of that place were under the leadership of an hereditary chief who belonged to the Pevesañahoiket family or clan. The chief himself was called Haviakwa as well as Pevesañahoiket. Since smaller villages had three and four parties, it seems unlikely that the grouping of twenty clans or families under one chief at San Luis Rey was a strictly aboriginal proceeding. Undoubtedly it was the result of Spanish contact.

At Pauma there are three parties: (1) Maxlañum (maxwal, fan palm; -um, plural, probably with the force of "people of"), of which Luis Maxlaña is chief; (2) Sokteum, of which Rejinaldo is chief; (3) Pauvalum, of which Encarnacion Pauval is chieftainess.

At Pichanga there are at present two parties, although long ago there were more. One is called Seyñoie and a man named Loqui is its chief. The other is called Kiyuñahoie (cf. kie or kitea, house) and its chief is Francisco Rodríguez, a mixed blood. Francisco translated the name of his party as "my home and my property," a name quite out of keeping with the names of the Rincon parties. A little investigation showed that Francisco's party is an upstart affair, founded within a year by him. The name adopted is that of a party once existing at Temecula, but all the members of which are dead. It was not ascertained whether Francisco's ancestors in the male line were chiefs. A Pichanga informant once belonged to the Seyñoie party, but withdrew many years ago and has not joined another. Loqui, the chief of this party, is said to have inherited his position from his mother, which perhaps means that his father died while he was young and that she acted in the father's stead until Loqui was old enough to take charge. When a chief purposes to have a ceremony he first assembles his people and disusses the matter with them. He sends his messenger, teaiya, to gather the people. The teaiya is selected by the chief and the position is not inherited.

Certain ceremonies are said to be the property of a single party only. At Rincon the tanie dance (a man's dance with feathers on the head) belongs to the Ivañawie party; the morahash dance to the Anoyum party. A Pichanga informant said that a man of that place might marry either a local woman or a woman from a distance. There was no interdiet against marrying a woman of one's own party, so long as she was not a relative.

At Pichanga, Pala, Pauma, and Rincon people speak of the bear (hunwut) as piwi, great grandparent, a term used by other groups for the totems coyote and wild cat. At first I thought that I had

another case of totemism, but as the custom is common to all of the Luiseño and not to special clans or parties, it became clear that I had not. The instances given below by the natives make clear that this term as used for bear is a term of respect and is parallel to the Miwok practice of addressing a spirit as grandfather. The explanation of Rincon informants is this: When people formerly went into the mountains for acorns they often saw bear tracks. They would say "That is my great grandparent." They thought the bears could understand them, and hearing them speak so respectfully, would take no offense and do them no injury. At Pichanga an informant stated that the bear (*hunwut*) was once chief at that place. It was stated that the use of the term *piwi* for the bear had nothing to do with the taking of *toloache* nor with the *Chungichmish* religion, although the bear is one of the avengers of that deity. Again it has no connection with the power of certain shamans to become bears. The killing of a bear, which was done with arrows, was the motive of an all-night ceremony conducted by the chief of a party. Eagles, which were also killed only ceremonially, are not spoken of as *piwi*. A fragment of a Temeenla story is to the effect that long ago a bear seized and killed a woman. The people went to the bear's den calling "*Nupiwí, nupiwí*," and drove the bear away.⁷³

Among the Luiseño and Cupeño there seems to be a well-developed belief in bear shamans. They are not a thing of the past as in central California, but exist and operate to-day. Their power is obtained by dreaming, independent of the visions induced by *toloache*. Cupeño informants remembered a man at Kupa who had the faculty of transforming himself into a bear, which he did at fiestas for the purpose of frightening people and amusing himself. They also told me of a Calhuilla bear shaman from San Ygnacio, a man of about forty-five, now residing at Banning. His name is Juan de la Cruz Norte and he is a member of the coyote moiety. Juan is reported to have assumed the shape of a bear on two occasions. The incidents rather point to hypnotism as the explanation of Juan's alleged power. Many white people have tried to induce Juan to change himself into a bear. He always asks too high a price, fifty to one hundred dollars, claiming that he must demand a big sum, as the risk is great. If he fails to make the transformation he dies at once.

Juan is clubfooted and of heavy build. It would not take a very vivid imagination to see the likeness of a bear in him. Indian

⁷³ Dolores Keshien, a Luiseño (?) woman at San Manuel Reservation near Patton, spoke of the bear as *piwi*, using in addition to *hunwut* the term *takahaiten*.

school girls have often joked about his clubfeet and bear-like appearance. A couple of years ago Juan appeared as a bear to two girls at Pala, who were among the number who formerly amused themselves at his expense. On this occasion there was a fiesta in progress, to which most of the Pala people had gone. The two young women remained at home. Juan came by on horseback and saw the two girls sitting in a house with the door open. He had been drinking and was probably in bad humor. At any rate he decided to have revenge for the previous injuries to his feelings. He rode up to the house, dismounted and stood in the doorway. He reminded the girls that they had twitted him about his feet and his bear-like appearance and that now he was really going to become a bear. The girls were very much frightened. He started to sing, raising and lowering his arms at the same time. His arms were flexed as he raised and lowered them from the shoulders. The terrified girls saw the hair appear on his body and saw the claws grow on his hands. His horse, which he held by the reins, snorted in terror, jerked on the reins, and finally pulled Juan out of the doorway, thus breaking the spell.

On another occasion, it is related, Juan and his brother quarreled while drunk. The brother said that he did not believe Juan could become a bear as he claimed. Juan accepted the challenge and the brother barely escaped from the house. Neighbors were summoned, but upon their arrival Juan had resumed his natural form.

Among the Luiseño, bear shamans are not unusual. The power of a bear shaman is not inherited by his children. The uncle of Canuta, a Saboba informant, was a bear shaman, *pula*,⁷⁴ of wide repute. He obtained the power at about middle age, but not by taking *toloache*. He did considerable damage and frightened many people while in that form. In response to inquiries as to the manner in which the power was obtained, informants always said that the shamans "came by it naturally," or received it "from above." The term for supernatural power was given as *cowoic*, which also means "someone to be afraid of." The great grandfather of Vidal Mojadu, a man now living at Saboba, was a shaman who could transform himself into a bear. He possessed this faculty from birth. When he made the transformation he merely sang a little and assumed his animal form. Many people witnessed the transformations. He did no damage while in bear form; he exhibited his power for the enjoyment of people. Vidal Mojadu's Indian name is Sepak, as was his great grandfather's.

⁷⁴ The generic name for shaman.

A Temecula bear shaman was once attacked by bears in the Santa Rosa Mountains. He turned into a bear, fought, and killed his attackers. He became a man again. This shaman was in the habit of killing cattle while in the form of a bear. He was killed and flayed by cowboys on one occasion. When they left he arose as a man from the bear carcass and returned home.

The following data seem of doubtful value yet are presented for what they are worth. They were secured at the village of Saboba, near the American town of San Jacinto, within Luiseño territory. Its original inhabitants seem to have been Luiseño, although the Cupeño story of annihilation mentions certain Cupeño of the Kauval clan who settled there. This, however, may have been within a century. At present there are Cupeño and Cahuilla mixed with the original Luiseño, many individuals having the blood of two or more of these groups in their veins. The various elements of Cahuilla, Cupeño, and Luiseño society are present at Saboba and apparently in an only partially assimilated state. Information at Saboba was obtained chiefly from an old woman named Canuta, whose Indian name was Salat, body louse. I know nothing of Canuta's parents; but I do know that her daughter, Cinciona, married Tomas Jauro, a Cupeño, who was the father of my interpreter, Mrs. Philomena Cleveland. Francisca Lala and Antonio Lechuza were two other informants interviewed at Saboba. Neither Francisca nor Antonio knew anything about moieties or totems. Canuta, however, did, and according to her Francisca and Antonio belong respectively to the coyote and wild cat moieties. Since the Luiseño at Pichanga and Rincon know nothing about moieties or totems, it seems probable that the information about such matters at Saboba really refers to the Cahuilla and Cupeño portion of the population and not to the Luiseño.

Canuta's totem was the wild cat. Her father's was likewise the wild cat, while her mother's was the coyote. Canuta's husband Leponcio was a Cahuilla of the coyote totem. The names of the moieties as given by Canuta were tuktum (wild cat moiety) and anom (coyote moiety). Anom is merely a Luiseño translation of Cahuilla and Cupeño istam. A person could not marry another of his moiety, because they were regarded as relatives. The moieties hunted together; there were not separate hunting grounds. Totemites killed their totem without prayer or ceremony. There were no other animals associated with coyote and wild cat as co-totems. There is a slight bit of evidence, however, that the totem was at times kept in

captivity and not killed. Francisca Lala and her father (now deceased), both alleged by Camta to be of the coyote moiety, were in the habit of keeping coyotes as pets. Francisca had one recently, but it escaped from captivity. I could learn nothing of the underlying motive in keeping the coyote in captivity.

In funeral and mourning ceremonies there seem to be no reciprocal functions on the part of the moieties, all for example, singing over the dead. In the administering of toloache the moiety of the officiating shaman (pula) or chief makes no difference. The initiates are of both moieties. In the girl's ceremony the initiates are likewise mixed as to moiety. No new name is given at initiation. Camta's daughter Cinciona was given her Indian name of Yewawimim seven months after birth. The name was given by Du Alberto, paha of the party to which Camta and her husband belonged. Du Alberto was said to be of the wild cat moiety. I suspect that Camta assigned moieties to certain individuals who were purely Luiseño in blood and who really belong to none. Of course, it is possible that the institution is spreading to the Saboba Luiseño.

In response to a request for myths concerning the totems, Camta related the following story:

Wild cat had three wives, the stars known as Hulateum, a part of the constellation Teehaiyum.⁷⁵ Coyote killed wild cat, flayed him, donned his skin, and then roasted and fed his carcass to wild cat's wives. They ate their husband, not knowing they were eating him. They searched for wild cat. Coyote, who had disguised himself in their husband's skin, went with them and married them. Coyote and the three women went to certain springs to bathe. Coyote told his wives to enter the water first. They did so. Then coyote threw off the wild cat skin and entered the water. His wives did not know that he had removed the skin. Coyote said, "I have reached the women." The women got out of the water and flew up to the sky. They threw into the air the root (kwinum) of a plant so that they might travel on it to the sky. They are in the sky now as the three stars of Hulateum. Coyote is in the sky chasing them.⁷⁶

There are three parties (nonotum) at Saboba, each with its hereditary chief. I could obtain no names for these parties, although they doubtless have names. In becoming a member of these parties moiety plays no part. People of both moieties belong to the same party. As elsewhere in Luiseño territory women become members of the parties by birth and by marriage. Both the position of chief (nota) of a party and the position of ceremonial assistant (paha) were passed

⁷⁵ Mr. Sparkman gives Hulateum as the name for the three stars of Orion and Teehaiyum for the Pleiades. Evidently one informant has confused Orion with the Pleiades.

⁷⁶ Compare a somewhat similar tale by Miss Du Bois, present series, viii, 164, 1908.

from father to son or brother. At times a woman was the only heir. Among the duties of the chief as ceremonial leader is the naming of the children born to members of his party. The paha notifies people of coming ceremonies and generally assists the chief. He acts as amokat (= hunter) or "chief of the rabbit hunt." Ceremonies which were carried out by each party were the girl's ceremony, the image ceremony, and the "war dance" (pulas or tanie) about the fire. Dances were not the property of individual parties. In the image ceremony the female relatives of the deceased make the images. A child belongs to the party of its parents. There is no exogamy in connection with the parties, a man marrying a woman either in or out of his party as he likes, so long as she is of a different moiety. There were not separate hunting grounds for the parties.

Ceremonies were held at or near the house of each chief. Each chief administered the toloache to the boys of his party. Moiety had nothing to do with the administering of this drug. The entire boys' ceremony, including the giving of toloache, the instruction at the sand painting, and the ceremony called wanawut,⁷⁷ was in the hands of the party chief. The morahash or whirling dance took place at the time of the ceremony of anut, placing red ants on the bodies of the initiates. This follows the giving of toloache. The morahash dancers may be of any party. There seems to be no proprietorship of dances as among the western Luiseño. The ceremonial killing of an eagle was another party ceremony in charge of a party chief.

A village chief who was elected, was chosen for his ability regardless of his moiety. He ruled over the entire population and held office as long as satisfactory. I suspect that this office is of modern origin at Saboba, as it seems to be elsewhere in southern California. Formerly a man named Victoriano was chief (noot) of the entire village. He was selected by the people. At present there is no village chief, but there are three party chiefs: Jesus Jauro, Teofilo Ba, and Soledad (Lucero) Mojadu, the wife of Augustine Mojadu. Soledad's Indian family name is Yuloteuwat, said to be a translation of Lucero, the Spanish name for Venus, the morning star. Teofilo is of the coyote moiety. These individuals all inherited their positions.

The following information concerns previous officials of the three Saboba parties. One party, already mentioned in connection with

⁷⁷ *Ibid.*, p. 85, 1908.

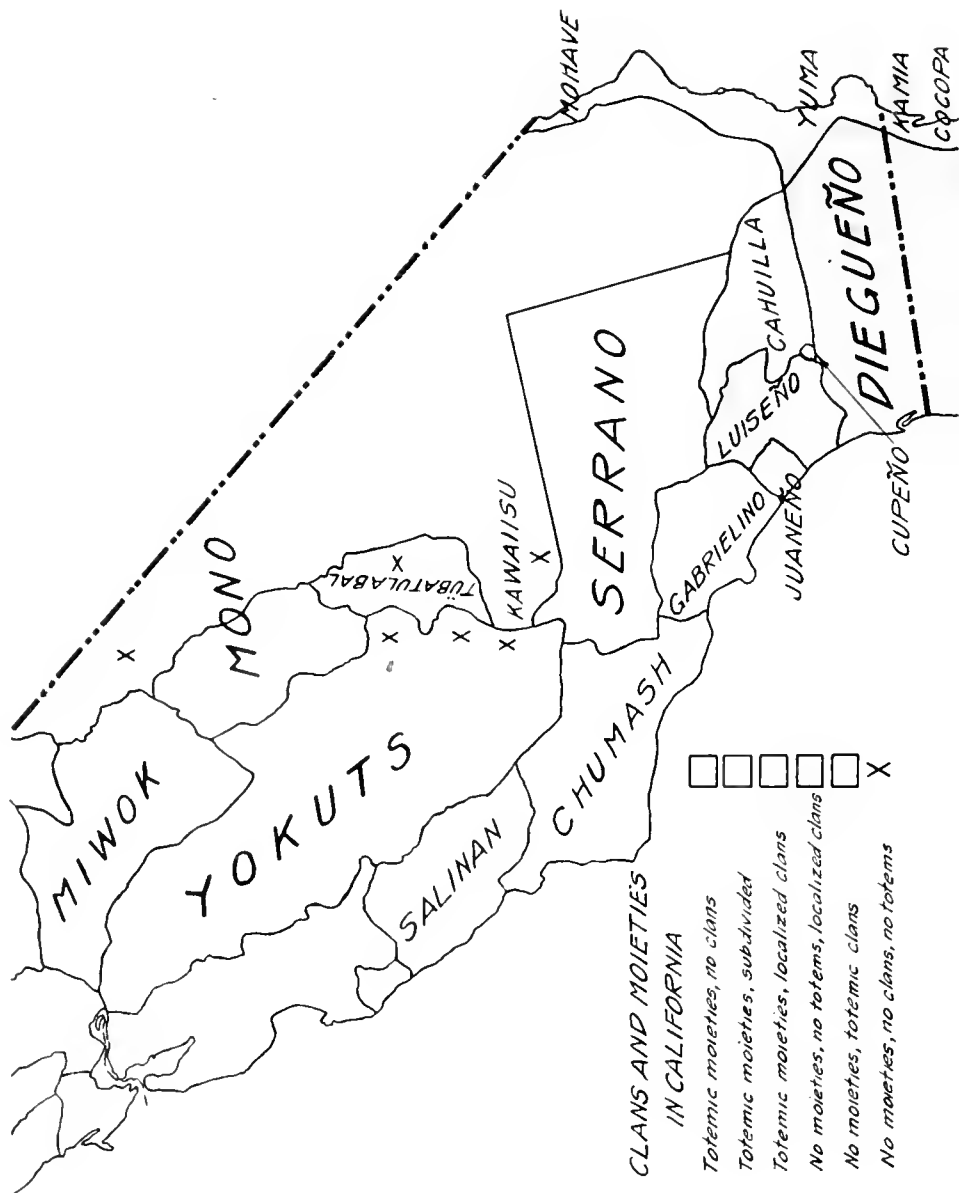
the naming of the daughter of an informant (Canuta), had as chief-tain a man named Cristobal Lakuiya, of the coyote moiety; and as paha Du Alberto, who had succeeded his father Matias (Indian name Tukut, wild cat), who in turn had succeeded his father. Du Alberto and his predecessors were of the wild cat moiety. Cristobal Lakuiya was the younger brother of Canuta's father. Jesus Jauro is now chief of this party. Tomas Apapas, a Caluilla, is the ceremonial assistant (paha) for Jesus Jauro. He succeeded his uncle Seferino to this position, and Seferino in his turn had succeeded his father. It was stated that Seferino and his father (a Caluilla) were of the "wolf (iewut) clan," which perhaps is really the Caluilla Iswetum clan (see p. 191). Seferino's mother was a Saboba woman of the wild cat moiety named Urbana (Indian name Samuyat).

A second party has as its leader the chieftainess Soledad (Lucero) Mojadu. Her ceremonial assistant or paha is Antonio Lechuza (Indian name Teipmal). Antonio succeeded his father Teodoreio, who succeeded his father Gitinyano. Gitinyano, whose Indian name was also Teipmal, inherited his position from his paternal grandfather of like name. The Teipmal are said by Canuta to be of the tukut moiety, although the present representative Antonio claims to know nothing about the moieties. The father's sister of the present Teipmal, a stout old woman named Soledad, is said to belong to the Gaupsi also (see p. 205).

The third party at Saboba is that of which Teofilo Ba is nota (chief) and of which Manuel Manamish was paha. Manuel is so old that he has given up the position of paha or ceremonial assistant. A man named Gervasio Romero (Indian name Hülvul, a sage brush, *Artemisia californica*, from which a drink is said to be brewed) fills his place, apparently, however, not by inheritance. Gervasio is of the coyote moiety.

Very few data were secured concerning individual Indian names. Mrs. Isabella Majel, a Saboba woman of Luiseño-Mexican parentage, was called Tealaka by her grandparents when small. Tealaka means "horned toad." It is not certain whether the following Saboba names are of individuals or families: (a) Akhel, a grass, probably the individual name of Tomas Jauro. (b) Wahat, a tree similar to a poplar (alamo), probably the individual name of mother of Mrs. Soledad (Lucero) Mojadu, a Luiseño woman of Saboba. (c) Hülvul, a species of sage brush, probably the individual name of a man called Gervasio.





MOIETIES, CLANS, AND TOTEMISM IN CALIFORNIA

A glance at the accompanying map shows that groups organized on the basis of totemic moieties with patrilinear descent occupy a large part of south central and southern California. The Colorado River tribes lack moieties, but they appear again among the Pima of western Arizona. In California, in approximate order from north to south, the groups with moieties are Miwok, Mono, central Yokuts, and Salinan in south central California, and southern Serrano, Cahuilla, and Cupeño in southern California. It is quite possible that the northern and southern moiety groups were actually connected geographically through the Buena Vista group of Yokuts and the Kitaneemuk (the northwestern Serrano). The former are extinct and the latter remain to be investigated. The absence of moieties among the Colorado River tribes is but one of the several negative characteristics of their peculiar culture, which is marked by the non-possession of certain cultural elements common to their eastern and western neighbors.

Three varieties of the moiety organization are distinguishable in California. First, there is the moiety and clan type of southern California, as among the Cahuilla, in which a number of non-totemic clans are grouped in totemic moieties. Second, there is the undivided totemic moiety of the Miwok and Yokuts. The third type is represented by the Mono. Superficially it resembles the southern California type with moiety and clan, but fundamentally it is different. Each Mono moiety comprises two subdivisions. Neither the subdivisions nor moieties are exogamous. As pointed out in a previous notice,⁷⁸ the Mono moiety organization is undoubtedly borrowed from the neighboring Yokuts and Miwok, for the Mono east of the Sierra Nevada lack it. The subdivisions of the Mono moieties probably represent a local development. It does not seem likely that they have an origin in common with the clans of the Serrano, Cahuilla, and Cupeño of southern California, since an extensive area without clans separates them. It seems justifiable to regard the minor Mono groups as subdivisions of moieties rather than as clans grouped in moieties.

⁷⁸ Dichotomous Social Organizations in South Central California, present series, xi, 296, 1916.

The wedge composed of Shoshonean (Tübatulabal and Kawaiisu) and Yokuts peoples (Yaudanchi, Paleuyami, and Yauchmani), which on the map has all the appearance of driving asunder the northern and southern moiety groups, is without trace of the institution. This is especially startling in the case of the Yokuts groups since their congeners of the San Joaquin Valley and of the Sierra Nevada foothills to the north possess the institution. The anomaly is explainable only on the basis of cultural diffusion. The Yokuts groups in question were in close touch with the Tübatulabal and Kawaiisu, two groups which lack the moiety organization as undoubtedly do their neighbors to the east. Correlative evidence in support of this explanation is found in the kinship systems and other cultural traits of the three Yokuts groups in question. The kinship systems resemble those of the neighboring Tübatulabal and Kawaiisu and differ from those of the central Yokuts groups with moiety organization. The Yokuts tribes among which the moiety organization is known are Chukehansi, Gashowu, and Tachi. Native report from the Tachi also credits with moieties the Chinut, Nutumutu, Telamni, Wechikhit, and Wowol.

The attempt to determine the present center of gravity of the moiety organization will not be essayed at this point. It seems best first to consider the distribution of clan organization and then to take up the matter of the diffusion of the two institutions, since it is impossible to discuss one without alluding to the other. In the following paragraphs the Mono are excluded.

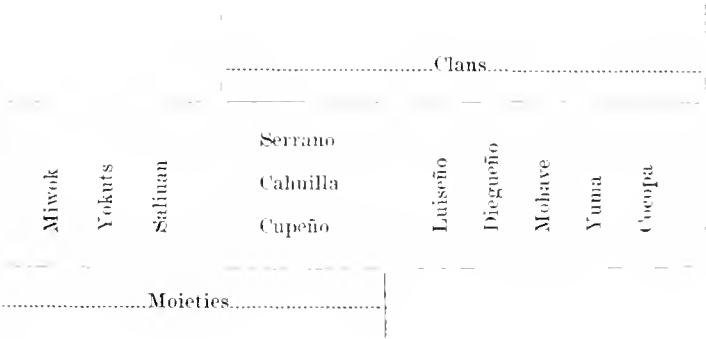
Like the moieties, the clans, which are limited to southern California, are patrilinear in descent. The groups organized on the basis of clans are the Yuman Diegueño, the Colorado River Yuman tribes (chief among which are the Mohave, Yuma, and Cocopa), and the Shoshonean Serrano, Cahnilla, Cupeño, and Luiseño. Nothing is known about the Juaneño, Gabrielino, and Chumash, but since they were in contact with groups which possess either clans or moieties, or both, it seems fair to assume that they were similarly organized. In the following discussion of clans it seems well to bring in the Pima.

We may separate the peoples with clans into four groups based upon the possession or non-possession by the clans of the following characters: (1) The clan totem; (2) localization; (3) the grouping of clans in moieties. The accompanying table makes clear the four groups. The first group is formed by the Pima and probably the Papago, from whom the data are insufficient. It is characterized by

totemic, non-localized clans combined in moieties. The second group is composed of the Mohave, Yuma, and Cocopa and is characterized by totemic, non-localized clans not combined in moieties. The third group comprises the Diegueño and Luiseño with localized, non-totemic clans, not combined in moieties. The fourth group embraces the Cupeño, Cahuilla, and Serrano and is characterized by localized, non-totemic clans grouped in moieties.

Tribe	Clan totem	Localization	Grouped in moieties
Pima	Yes	No	Yes
Mohave	Yes	No	No
Yuma	Yes	No	No
Cocopa	Yes	No	No
Diegueño	No	Yes	No
Luiseño	No	Yes	No
Cupeño	No	Yes	Yes
Cahuilla	No	Yes	Yes
Serrano	No	Yes	Yes

Considering the distribution in California of both moiety and clan we find an area in which both institutions occur bordered on one side by an area in which only the moiety is found, and on the other side by an area in which only the clan is found. (See following diagram; also map.)



This type of distribution permits of two interpretations. First, we might assume that the complex of moiety and clan was fundamental and that it centered in southern California, perhaps with the Gabrielino, from whom certain cultural features, such as the toloache cult of California, seem to have radiated. From this center the complex perhaps spread north, south, and east, losing the clans in the north and the moieties in the south and east. Second, we might assume that the moiety and the clan are separate institutions which

have originated in their respective independent areas. From these two centers the institutions have perhaps been diffused, giving to the intermediate tribes both institutions. Personally, I am inclined to consider the latter hypothesis as more nearly fitting the known facts. From the data at hand, the moiety complex as found among the Tachi Yokuts seems to be the most highly developed, and there is no question but what we must look beyond the boundaries of California for the focus of clan organization.

The affinity and ultimate origin of the patrilinear clans and moieties of California must, in my opinion, be traced to the Southwest in spite of the barrier of matrilinear descent in that region. Geographically, there is actual contiguity of the two areas; while, on the other hand, if we seek an origin for the patrilinear clans and moieties of California in the related institutions of certain Northwest, Plains, and Woodland tribes, we are confronted by enormous intermediate areas in which neither patrilinear nor matrilinear clans occur. That the difference in descent is not a bar to considering the Southwest and the southern half of California as a single area in this matter is further emphasized by the occurrence, side by side, of patrilinear and matrilinear institutions in the Northwest, Plains, and Woodland areas, clearly paralleling the situation in the Southwest-California area.⁷⁹ Furthermore southern California is indebted to the Southwest for several important cultural traits. It seems entirely reasonable to regard clans and moieties as simply another addition to the list. I do not mean to assume, however, that the clans of the Colorado River tribes or the moieties of the Miwok are transplanted institutions, but simply that their ultimate origin is to be sought in the Southwest. Their present day features are unquestionably developments *in situ*, which doubtless stand for a long period of independent evolution since the appearance of the original institution. Of course, it is entirely possible that the moiety is a wholly independent and local development of the San Joaquin Valley of south central California, for the fact must not be lost sight of, that the moiety may embrace half of an entire linguistic stock numbering many thousands, while the clan embraces a comparatively small, and theoretically consanguineous, group.

⁷⁹Swanton, John R., The Social and the Emotional Element in Totemism, *Anthropos*, ix, 296, 1914. "It is a striking fact that the tribes presenting mother-right and father-right always occur in contiguous, not in detached, areas. We do not find mother-right in one section and father-right in another section with non-totemic tribes between. They are always in conjunction and in most cases both are represented in each area."

The problem of totemism seems less complex than that of social organization, for totemism recks not of maternal or paternal descent, nor of clans nor moieties. In ultimate origin it seems evident that we must associate the totemism of California with that of the Southwest. In fact, when mapped, the Californian totemic area appears simply as the northwesternmost extension of a great totemic area centering in the Southwest. Furthermore, the volatile concept of totemism has a wider vogue in California than such Southwestern cultural features as pottery, the curved throwing stick, and the sand painting.

The division of nature into moieties and the assumption by each human moiety of one half of nature for its totems is an extreme development of the totemic idea found in California only among the Miwok.⁸⁰ Such an attitude toward nature seems to be but the natural and logical result of two factors operating in the native mind: (1) the grouping of mankind in moieties; (2) the belief that animals were once men or that animals preceded men upon earth. With these two ideas as a starting point it takes but a feeble system of philosophy to produce an arrangement of all animate and inanimate things in moieties. We find weak attempts at such groupings among the Yokuts, Mono, Cahuilla, and Serrano. It is only among the Miwok that the scheme has been carried to a consistent and logical conclusion.

Totemism, as expressed in names of individuals, requires a few words of comment. The personal names of the Miwok with their totemic connotations have already been shown to be similar to those of the Hopi.⁸¹ We find a practice allied to that of the Miwok and Hopi among the Yuman tribes of the Colorado River and among the Pima and Papago. Each clan among the Yuman tribes possesses an archaic and perhaps esoteric word or name of totemic connotation, which is applied to all of the women of the clan.⁸² Among the Pima and Papago a somewhat similar practice prevails: the word in each case is applied by all of the members of a clan to their fathers. The totemism manifested in names among these three widely separated groups, Miwok, Hopi, and Yuman-Piman, strengthens the hypothesis of a common origin for the totemism of California and the Southwest.

⁸⁰ E. W. Gifford, *Miwok Moieties*, present series, xii, 142, 1916.

⁸¹ *Ibid.*, p. 147.

⁸² For lists of such names see pp. 158-165.

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IN

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Vol. 14, No. 3, pp. 221-436, plates 1-21, 15 text-figs. December 23, 1918

ETHNOGEOGRAPHY AND ARCHAEOLOGY
OF THE WIYOT TERRITORY

BY

LLEWELLYN L. LOUD

UNIVERSITY OF CALIFORNIA PRESS
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Collected set.

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INTRODUCTION

California is almost entirely lacking in coastal plain, there being only a half dozen places along the entire coast from Oregon to Mexico where the 1000-foot contour line is more than ten miles inland, and some of these places are mere breaks in the coast where rivers have their outlets. On most of the California coast the 100-foot contour line is practically the coast line itself, hence the area occupied by low plain, marsh, or tide lands is very restricted.

The chief salt marsh and tide-flat area in California is about San Francisco bay. Here there was an abundance of mollusks as an aboriginal food supply. Hence shellmounds and refuse heaps are very numerous. The Department of Anthropology of the University of California having located about 450 such archaeological sites and having excavated in 13 (a partial report of which is found in several papers of the present series),¹ it was deemed best to undertake similar work farther up the coast. Because of the abrupt character of the coast, the locality promising best results appeared to be around Humboldt bay, about 220 miles up the coast from San Francisco. Accordingly, from July 15 to November 5, 1913, the writer was engaged in an archaeological exploration of the territory about this bay, and around the lower courses of Mad and Eel rivers. About half of the time in the field was spent in excavating one of the most prominent shellmounds of the region, situated on Gunther island in the bay opposite Eureka. The other half of the time was spent in making various trips by foot, by team, by stage, and by rowboat about the bay and the rivers mentioned.

Considerable information as to former conditions was gathered from pioneers of the region and particularly from Robert Gunther, the owner of the island where the excavation was made. The Indian informants were: John Stevens, who gave the Athapasean names of the places between Blue Lake and Maple creek; Jim Brock, of Blue Lake, who gave the Athapasean names of villages along Mad river from its mouth to Maple creek; Tom Brown and Aleek Sam, at the mouth of Mad river, who gave the Wiyot names of places on Mad river from its mouth to Blue Lake, as well as several sites on the

¹ Max Uhle, Emeryville Shellmound, 1907; N. C. Nelson, Shellmounds of the San Francisco Bay Region, 1909; N. C. Nelson, Ellis Landing Shellmound, 1910; present series, VII. E. W. Gifford, Composition of California Shellmounds, 1916, present series XII.

coast; and Dandy Bill, an old Indian patriarch, who lived at Indianola, at the south end of the bay. The last named gave the Wiyot names of places on Humboldt bay, on Eel river from its mouth to Scotia, and on the coast from Trinidad Head to Cape Mendocino, as well as considerable history and general information concerning his people.

While the manuscript as a whole was read and criticized by Professor A. L. Kroeber, the writer submitted to authorities in various branches of learning those portions of his manuscript dealing with sciences other than anthropology, and in this connection wishes to acknowledge his obligations to the following persons for their criticism: W. L. Jepson, Professor of botany; Joseph Grinnell, Professor of Zoology; B. L. Clark, Conchologist; J. C. Merriam, Professor of palaeontology and geology; H. E. Bolton, Professor of American history; and O. C. Coy, Secretary of the California Historical Survey Commission.

The writer also wishes to acknowledge his obligation to Dr. A. L. Kroeber and to Dr. T. T. Waterman for their courtesy in allowing him to make use of manuscript lists of geographical names which they had previously obtained. These lists of names together with notes will be found appended to the lists of geographical names obtained by the writer.

ENVIRONMENT OF HUMBOLDT BAY REGION

PHYSIOGRAPHY

Humboldt bay is fourteen miles long and from half a mile to three and one-half miles wide. It is separated from the ocean by a sand-dune ridge, having a width of a quarter of a mile to one mile. This dune reaches in places an elevation of 85 feet. The channels in the bay are quite narrow, but in places are 50 feet deep, and maintain depths of 10 to 20 feet at low tide clear to the very extremities of the bay. With the exception of these narrow channels, the bay is only 3 to 5 feet deep at low tide, and exhibits extensive mud flats (pls. 1, 2, and 3).

The largest marsh areas are to the northeast, up Eureka slough, and to the southeast, up Hookton slough and Salmon creek. At the north end of the bay a marshy area connects with Mad river, which in times past undoubtedly had two or more outlets, one channel leading direct to the ocean, the other channel passing into and through

Humboldt bay. It is likely that there was always one channel direct to the sea, because if there had once been an interruption in the flow of the stream, sand-dunes would soon have piled to a sufficient height to block the flow in that direction. Mad River slough nearly connects with the river, and in early days lumbermen finished the connection so as to float logs from the river into the bay. There might also have been a connection at one time with the bay by way of Daniels slough, near Arcata.

Between Mad and Little rivers there is a plateau of over 100 feet elevation. The edges of this plateau form a steep bluff close to Mad river, and less than half a mile from the ocean. Plate 5, figure 1 shows the mouth of Little river, and the more rugged character of the coast for three miles to the northward. In the center of the picture is shown Little River Rock, 120 feet elevation; to the left in the distance is Pilot Rock, 103 feet elevation, and in the background is Trinidad Head, 380 feet elevation. At the mouth of Little river the change from an abrupt rocky coast to a sandy beach and sand-dunes is very marked. To the left of the picture is seen the sandy beach, which extends southward uninterruptedly nearly to Cape Fortunas. Plate 8, figure 1, and plate 10 show the character of the sand-dunes to the south of Mad river.

Between the mouth of Little river and Cape Fortunas, as well as on the shore of the bay, there are no rocks suitable for the attachment of mussels, though there used to be many redwood logs in the bay to which the small mussel, *Mytilus edulis*, could attach. The large rock mussel, *Mytilus californianus*, is abundant north of Little river, and also about Cape Fortunas, off which are numerous rocks.

Between Eureka and Salmon creek there are bluffs twenty feet high or more. Some of the Indian village sites were on top of the bluffs, and some on the lowlands. Red Bluff, 100 feet in elevation, made the discovery of the entrance to the bay from any ship impossible, being situated, as it is, directly back of the opening in the sand-dune ridge, thus making the shore line appear continuous at a little distance. To the southeast of the bay, Humboldt hill rises direct from the shore to an elevation of 600 feet (pl. 5, fig. 2). The south end of the bay is separated from the delta of Eel river by a small plateau, Table Bluff, 165 feet in elevation.

Eel river delta has a frontage on the ocean of eight miles and stretches inland eight or ten miles, tidewater reaching as far as Fortuna. Here the course of the river had been so erratic that the

Indian village sites could not be located with any degree of accuracy. The delta, triangular in shape, is bordered by steep hills, the position of which can be judged from the map (pl. 1) by the position of the three towns, Loleta, Ferndale, and Fortuna, all of which lie at the base of the hills.

It will be readily understood that the area of lowland and marsh is rather restricted, when we learn that the distance between the mouth of Mad river and the southern edge of the Eel river delta is only twenty-seven miles. This area is shut in on all sides by mountain ridges rising to an elevation of over 3000 feet, and sweeping around in a semicircle from Trinidad Head to Cape Mendocino, fifteen miles south of Eel river, where the 1000-foot contour line is within half a mile of the coast.

FOREST

This encircling mountain ridge would act, to a considerable extent, as a barrier in keeping separate peoples apart, but of much greater importance would be the barriers of vegetation. The chief forest tree is the coast redwood, *Sequoia sempervirens*, which is found only within reach of the ocean fogs, or inland for a distance of about thirty-five miles at most. The eastern boundary of the redwood belt is shown on the map (pl. 1). Professor Jepson says of this tree:²

It is the tallest tree on the American continent. In the forests near Scotia, a tree 662 years old . . . had a trunk diameter of 10 ft. 5 in., at 6 ft. above the ground, and was 340 ft. in height. Trunks from 15 to 20 ft. in diameter are not uncommon in that region.

The first land party, coming from the Sacramento valley by way of the Trinity mines, reaching the coast just a little south of Little river December 16, 1849, describes the journey through the forest as follows:³

Through this forest we could not travel to exceed two miles a day. The reason of this was the immense quantity of fallen timber that lay upon the ground in every conceivable shape and direction, and in very many instances one piled upon

² W. L. Jepson, *Flora of Western Middle California* (Berkeley, Encina Publ. Co., 1901), p. 24. For the largest tree known see W. W. Elliott & Co., *History of Humboldt County, California* (San Francisco, 1881), p. 141, referring to Hutchings' *California Magazine*, 1856. This was a hollow tree measuring thirty-three feet in diameter, situated near where the early trail from Trinidad to the Klamath mines crossed Redwood creek. It was frequently used as a shelter by parties composing pack-trains.

³ *The Discovery of Humboldt Bay*, a narrative by L. K. Wood, first published in *Humboldt Times*, 1856, revised and republished 1872 (?) in *West Coast Signal*, republished in W. W. Elliott & Co., *History of Humboldt County, California* (San Francisco, 1881), pp. 83-95.

another so that the only alternative left us was literally to cut our way through. To go around them was often as impossible as to go over them. We were obliged, therefore, constantly to keep two men ahead with axes, who, as occasion required, would chop into and slab off sufficient to construct a sort of platform by means of which the animals were driven upon the log and forced to jump off on the opposite side. There was not the least sign indicative of the presence of any of the animal creation; indeed it was almost as impenetrable for them as for us, and doubtless was never resorted to save for purposes of shelter.

Some idea of the density of these forests can be gained when we learn that single acres have yielded as high as 1,300,000 board feet of lumber, while other claims have been made that two and a half million board feet stand on some acres.⁴ This is equivalent, in the first instance, after all the waste of cutting and manufacture, to a solid layer of wood evenly spread over an acre of ground to a depth of thirty inches in thickness, or in the second instance, to a depth of fifty-seven inches.

Associated with the redwood is not over twenty-five per cent mixture of Douglas spruce, tideland spruce, coast hemlock, red cedar, and tan oak. On the top of the ridges to the east of the redwood belt lies a second timber belt composed of tan oak, black oak, Oregon oak, madroña, California chestnut, California laurel, and yellow pine. The North Spit for about half of its width is occupied by sand-dunes without any trees or shrubs, but there is a strip next the bay with shrubs and beach or scrub pine.

W. L. Jepson, in his memoir on the *Silva of California*, describes ninety-two species of trees in the state, which he divides into five forest provinces, the North Coast Range province having the greatest number of species, namely, fifty-nine. This is the chief forest area of the state because of the greater rainfall, and the species are numerous because of the mingling here of the typically Californian forms and the northern coast forms. Many of the species reach their greatest dimensions in the North Coast province, though others grow to larger size in Oregon and Washington. Table 1 at the end of this paper shows the great variety of species found in the territory under consideration, that is, in the territory within the limits of the map, plate 1. A few of the species included in the table may not be very common, but on the other hand the writer may have left out two or three which should be included. A perusal of the table, with a note of the size to which the several species grow, will show most conclusively that the Wiyot Indians lived in a true forest environ-

⁴ W. L. Jepson, *Silva of California*, Mem. Univ. Calif., II, 131, 1910.

ment—a forest not to be excelled outside of the tropics. Even plants, which in other climates are mere bushes, here become trees of considerable size.

PRAIRIE

Within the forests, at all elevations from sea level to the top of the ridges, there were small open patches, known locally as “prairies,” producing grass, ferns, and various small plants. These prairies are too numerous to mention in detail. A few of the more important are located on the map. Most of these patches if left to themselves would doubtless soon have produced forests, but the Indians were accustomed to burn them annually so as to gather various seeds, especially a species of sunflower,⁵ probably *Wyethia longicaulis*. The statement of Professor Jepson⁶ that “there is today more wooded area in Humboldt County than when the white man came over a half century since,” was confirmed by reports made to the writer that some of the old prairies had come up to young growth of forest.

These prairies were of incalculable value to the Indians, not alone for their vegetable products, but also for the game found upon them. A sharp contrast is drawn between the animal life in the forests and on these prairies, in the accounts of the exploration party previously mentioned.⁷ At one time the party fasted three days and lost two pack mules by hunger and exhaustion, before they came to a prairie stocked with game and grass. From there they went on for ten days without “the sight of any living thing that could be made available or useful for food.” Then ascending a rocky eminence they reached another prairie where they saw “on one side . . . little knots of deer, on another and nearer . . . a large herd of elk, and still in another direction both.” Before reaching any of this game they met and shot five grizzly bears.

INDIAN TRAILS

One of the men in the above mentioned party and several of the mules starved to death before the trip ended, but the Indians were better acquainted with the location of these oases, as it were, in the

⁵ George Gibbs, Journal of the expedition of R. McKee from Sonoma to the Klamath river in 1851, in H. R. Schoolcraft, *Indian Tribes*, III, 127, 1852, published by authority of Congress, 1860.

⁶ W. L. Jepson, *Silva of California*, *op. cit.*, p. 16.

⁷ L. K. Wood, *op. cit.*, pp. 86–87.

midst of desolation, and they maintained regular trails between them. A few of the trails are located on the map, plate 1. The principal ones are as follows:

1. From the mouth of Mad river down the coast and down the North Spit to site 23, where visitors to Gunther island would shout or build a fire to attract attention so that a boat would come for them.
2. From the mouth of Mad river to Arcata Prairie; thence around the marsh on the east side of the bay to site AN on Eureka slough; thence over the hills to the rear of Eureka direct to site 73; thence down the east side of the bay and up Salmon creek, crossing it just below site 91; and then continuing southward to Eel river near Fortuna. This is the trail over which the Indians guided the party of L. K. Wood. That portion, at least, extending from Salmon creek to Eel river was called worlok.⁸
3. Beginning on Mad river two or three miles below Blue Lake and extending to Redwood creek. Name, tātōkwowok.
4. From Blue Lake, site Y, to Liscom hill.
5. From Blue Lake to Bald mountain, passing the "arrow tree," site AH.
6. From Mad river, site AK, to Boynton Prairie.
7. Up Jacoby creek to Boynton Prairie.
8. From Jacoby creek to Blue Lake.
9. From Eureka slough, site AM, to Kneeland Prairie.
10. From the head of canoe navigation on Elk river to Kneeland Prairie.
11. From the entrance to the harbor, site 112, following the bay shore down the South Spit to site 109; thence crossing over to the ocean beach and following that southward to Table Bluff; then following the ridge of Table Bluff in a southeasterly direction ending at site AW on Eel river. The name of this trail was lalōckā or lalōwokā. It had five branch trails connecting with the chief villages at the south end of the bay.
12. From site 100, yawonawok, to the main trail on top of Table Bluff. The name of this trail was yawonawok-holowol. The word holowol seems to be a compound from ho'l, "water," and wolol, "trail."
13. From site 90, toktowoka, to the main trail along the ridge. Name, toktowoka-holowol.

ETHNOBOTANY

As the writer devoted his main inquiry to the location of village sites and facts regarding them, he did not have a great amount of time to spend in the study of ethnobotany, however desirable that might have been. Nevertheless, he noted a few of the more useful plant species and obtained their Wiyot or Athapascan names. Other Wiyot names, those in parentheses, are taken from A. L. Kroeber's "The Languages of the Coast of California North of San Francisco."⁹

⁸ For orthography of Indian names obtained by the writer see introductory remarks preceding the Lists of Geographical Names.

⁹ A. L. Kroeber, present series, ix, 409, 1911. A more specific account of the ethnobotany of the region eighty miles southeast of Humboldt bay can be found in V. K. Chesnut, *Plants Used by the Indians of Mendocino County*, U. S. National Herbarium Contributions, VII, 1902.

Wiyot Plant Names and Uses

TREES

Redwood, mōpel (wopL).
 Pine (mukweti).
 Spruce, two species, tok, wonok (dak, dāp).
 Willow (tigerL).
 Alder (wit).

BERRIES

Currant, *Ribes sanguineum*.
 Blackberry, *Rubus vitifolius* (mīp).
 Thimbleberry, *Rubus parviflorus* (kiwātehokwere).
 Salmon-berry, *Rubus mucosus* (we'taw).
 Sand Strawberry, *Fragaria chilensis*.
 Salal-berry, *Gaultheria shallon* (mikwel).
 Sand-berry, *Arctostaphylos uva-ursi*, shogowi.
 Huckleberry, *Vaccinium ovatum* (mō'kel).
 Red Bilberry, *Vaccinium parvifolium*.

SEEDS

Wild oats, *Avena* sp. (rakwiyidāg'eral).
 Sunflower, *Wyethia longicaulis* (?).
 Other edible seeds (eecerāwen, mokerits, raladethen, Lōkāi).

EDIBLE HERBS

Clover, *Trifolium* sp., rokoiyi.
 Sweet anise, *Carum kelloggii*, siswileatkok.
 Other edible herbs, wau.

EDIBLE ROOTS

Indian "potato," *Brodiaea coronaria*, topōdērōs (bōderūe).
 Other edible roots (wel, blōkat, hokitchere, rapeaue).

OTHER PLANTS OF VALUE

Soap-root, *Chlorogalum pomceridianum* (kātserā).
 Fern, *Woodwardia* sp. (tigwametsla-wēL).
 Squaw-grass, *Xerophyllum tenax* (himene-wēL).
 Tule, *Scirpus* sp. (sōpitk).
 Hazel, *Corylus rostrata* (legolēs-wēL).
 Viburnum, *Viburnum ellipticum*.
 Iris, *Iris macrosiphon*.
 Tobacco, *Nicotiana* sp.

The redwood was indispensable to the modern Indians. Without it their culture would have been altogether different, but with it their culture is remarkably similar in many respects to that of the coast from Oregon to Alaska, where cedar is used, both woods being similar in texture and easily worked with primitive tools. Cedar though present on Wiyot territory, is not abundant enough for the purposes for which a soft wood is needed. With elk-horn wedges, planks 10 to 16 feet long and 2 to 5 feet wide were split out for house building,

the planks being sometimes put on end and sometimes on edge. Numerous inquiries were made of the pioneers as to the size of these houses and all the answers were remarkably uniform, some estimating the size to be 10 to 14 feet long, others 12 to 16 feet long. They were usually nearly square, but had some variation in different villages, which will be noted later.

A second important use to which redwood was put was in canoe making. A good sized canoe would be 18 feet long and 4 feet wide. It was made from a log by being hollowed out with fire. This work was done a little at a time during the evenings so as to drive away mosquitoes. In former days, when there was a considerable Indian population on Eel river, these lights, as seen from a distance, were very numerous along the river. It is interesting to note that the Wiyot name for boat is not a simple root but a compound, *ho'l-owi*, "water-go." With the exception of the Sinkyone and the Indians of the Santa Barbara islands, none of the Indians of California to the south of the Wiyot had canoes, but used tule rafts¹⁹ instead, while all the tribes to the north had canoes which they used not alone on lakes, rivers, and bays, but on the ocean as well.

The digger pine, *Pinus sabiniana*, though not so abundant as other trees in the Wiyot area, was found on the eastern border of the redwood belt. It furnished nuts both for food and for making beads used in decorating the skirts of women. Both pine nut beads and beads made from small nutlets of *Viburnum* were found in a carbonized condition while excavating in a shellmound. Hazelnuts and acorns were obtained in large quantities on the ridges to the east of the redwood belt, though perhaps acorns were a somewhat less important food than in other parts of the state.

The huckleberry was the most important of the numerous berries, and at certain seasons the Indians established camps to gather it on the North Spit, where the plant developed to greatest perfection. Strawberries were formerly much more plentiful than at present, especially on the sand-dunes between the entrance to the harbor and the mouth of Eel river. The sand-berry or bearberry, a rather dry

¹⁹ For canoes among the Sinkyone, and tule rafts on Clear lake, see George Gibbs, *op. cit.*, pp. 107, 125. For canoes on Trinidad bay see below under Early Voyages. Stephen Powers, Tribes of California, Contrib. N. Am. Ethn., III, 48, 1877, gives what is to say the least a somewhat exaggerated description of the canoes on Klamath river which are practically identical with the Wiyot canoe. He says that the Indians would take a large canoe carrying five tons of dried fish, shoot the dangerous rapids and the surf at the mouth of the river, then go twenty-two miles up the coast to Crescent City, where the fish were exchanged for a boatload of merchandise.

drupe belonging to the heath family, was eaten after being cooked. The berries, together with hot coals, were put in a basket and shaken until nearly ready to pop. They were not allowed to burst because then too much of the starchlike pulp would be wasted.

Various seeds of grasses, Compositae, etc., were obtained from the prairies, as previously stated. These were ground into flour, which was cooked in the form of soup or porridge. They were also eaten dry, after being parched.

The blossoms and leaves from several species of clover were eaten raw. The stalks of sweet anise, a species of parsley, were also eaten raw after the skin was removed. This plant was abundant on Arcata Prairie and was called *siswīcatkok*¹¹ because it made the lips black, *sīsua*.

Various roots and bulbs were used for food, of which one of the most desirable was that of *Brodiaea coronaria*, a blue-flowered, onion-like plant called "Indian potato" or *topōdērōs*. This was important enough as a food product of the prairie to the north of Mad river, to give its name to Lindsey creek and to a camp site near its head where many of the corms were gathered at certain seasons.

Fish nets and rope, for snaring game such as elk and bear as well as smaller animals, were made from the fiber of iris leaves.¹² A species of tobacco native to California was the only plant cultivated, and has been mentioned in the Spanish account of the discovery of Trinidad bay.¹³

Athapasean Plant Names

Several plants and trees found in Wiyot territory were mentioned by the Athapasean informants living at Blue Lake. They are as follows:

- Pine, *Pinus ponderosa*, djemōwhung.
- Redwood, *Sequoia sempervirens*, khōkwo.
- "Dark wood, 4 inches in diameter," dāmā.
- Brush, tet.
- "Wild Potato," *Brodiaea* (?) sp., kos.
- Wild oats, *Avena* sp., klokā'.
- Nettle, *Urtica lyallii* (?), holchēk.
- Edible "grass," honsisaliwhēh.
- Edible fern roots, *Pteridium aquilinum* (?), tāchenkā'.
- Another fern, djemashun.

¹¹ A. L. Kroeber, Jour. Am. Folk-Lore, xxi, 38, 1908, says that the root of *sisuloiyatgak'tl* was used for purification after handling the dead.

¹² P. E. Goddard, Life and Culture of the Hupa, present series, 1, 35, 1903.

¹³ See description of tobacco and tobacco pipes under the heading, Objects of Steatite and Slate.

The name *honsisaliwhch* was given as that of "a kind of grass that Indians eat," a plant growing three feet high and especially abundant near site B. It is possibly the same plant that the Wiyot call *sis-wilcatkok*, a species of parsley, *Carum kelloggii*. The "wild potato," *kos*, was described as being dug from wet and marshy ground and washed in a "lake" at site D, *kos-tenaiete-ten*. Nettle, which has a medicine in its roots, furnished the name for site F. In like manner wild oats, the two species of ferns, and "dark wood," furnish the names for sites K, S, I, and V, respectively, while Maple creek was named, *djemētāwhot*, after the pine trees, *djemēwhung*, growing there.

FAUNA

Animal bones were obtained by excavation in site 67 at various depths to nine feet. During the excavation an impression was gained that, compared with at least some of the mounds at San Francisco bay, there were relatively fewer mammal bones, more fish bones, and far more bird bones, perhaps twice as many. The observations were made from appearances only and not by any method of measuring. Later, when an analysis of the mound composition was attempted, the figures obtained seemed to be in harmony with this judgment. However, as the analysis itself (see table 3 and the section on Composition of the Mound) is more or less faulty, too much reliance should not be placed in these statements.

Mammals

Owing both to the fragmentary condition of the mammal bones and the lack of comparative material, some of the bones cannot be positively identified. Only five species were recognized, and these seem to occur at all depths in about the same proportions. They are given in the order of their abundance.

- Roosevelt wapiti or "elk," *Cervus roosevelti*.
- Pacific harbor seal, *Phoca richardi*.
- Steller sea-lion, *Eumetopias stelleri*.
- Cetaceans, indet.
- Black-tailed deer, *Odocoileus columbianus*.
- Sea-otter, *Lutra lutris*.

Quite a few bones were gathered on sites 10, 11, and 12, including elk, seal, sea-lion, whale, and sea-otter bones. Owing to the lack of mammal remains in the shellmounds, we can do no better than to take a list of the animals of the region obtained from Wiyot inform-

ants.¹⁴ To this list we add the scientific names of the species to which they should probably be referred.¹⁵

CETACEA

Killer-whale, *Orcinus rectipinna* or *O. ater*, delabelil.¹⁶
 Whales, sp. indet., kīmak, dayugele.
 Porpoise, *Phocaena phocaena*, kerawagatkari.

CERVIDAE

"Elk," *Cervus roosevelti*, me'lakw.
 Deer, *Odocoileus columbianus*, hālakw, hōlakw.¹⁷

PINNIPEDIA

Seal, *Phoca richardi*, mātswaptsire.
 Sea-lion, *Eumetopias stelleri*, gūmāyōlil.

FELIDAE

Panther, *Felis oregonensis*, datgacānil, datkalānil.
 Wild-cat, *Lynx fasciatus*, datsgagererar.

CANIDAE

Coyote, *Canis ochropus*, witskererar, wītkal.
 Wolf, *Canis gigas*, rākwnliril.
 Dog, *Canis familiaris*, wāiyits, wāiyēts.
 Fox, *Urocyon cinereoargenteus*, hālikwilil.

PROCYONIDAE

"Civet-cat," *Bassariscus astutus raptor*, teigerēlāril.
 Raccoon, *Procyon psora pacifica*, ra'rawēic, tewēlig'ateātei.

URSIDAE

Bear, *Ursus americanus*, tsetsgeruligerer.
 Grizzly, *Ursus horribilis*, mākw, kanāpelil.¹⁸

MUSTELIDAE

Otter, *Lutra canadensis pacifica*, sekseswīl.
 Sea-otter, *Lutra lutris nercis*, da'kere.
 Skunk, *Mephitis occidentalis*, bōtewi, būteiwī.¹⁹
 Fisher, *Martes pennanti pacifica*, dikwagāwī.²⁰
 Mink, *Mustela vison erermeneos*, gō'miri.
 Weasel, *Mustela xanthogenys munda*, tsugatlaiugoner.

RODENTIA

Chipmunk, *Eutamias townsendi ochrogenys*, seles, beedūlil.
 Gray squirrel, *Sciurus griseus*, wīt'hōt.
 Gopher, *Thomomys bottae laticeps*, yacūeagātek.
 Hare, *Sylvilagus bachmani*.
 Wood-rat, *Neotoma* sp., lete.
 Wood-mouse, sp., indet., tseretshigarer.

¹⁴ A. L. Krober, present series, IX, 407, 1911.

¹⁵ Joseph Grinnell, Distributional List of Mammals of California, Proc. Cal. Acad. Sci., ser. 4, III, 1913.

¹⁶ *Bel*, to catch fish.

¹⁷ *Hō'lakw*, water-at.

¹⁸ *Kanāpelil*, biter.

¹⁹ *Cawet*, white.

²⁰ *Dīkwa*, poison.

In early days it was said to be no uncommon thing to see herds of forty and fifty elk. In 1850 a herd, judged to contain five hundred, was said to have been seen near Crescent City. Other game was also plentiful, but all accounts speak of the Wiyot as very indifferent hunters: "not very expert with the bow, and it is not considered a dangerous weapon in their hands at the distance of *fifty* yards."²¹ However, they somewhat made up for their inexpertness with the bow by their ability as trappers. With iris fiber ropes they snared deer, elk, bear, and panther, though the bear and panther sometimes chewed the rope and got away. If they caught a grizzly after the arrival of the whites, they usually let them do the killing rather than venture to do it themselves.

Birds

Water fowl are still numerous enough to make excellent hunting in season, and formerly they were very abundant, as is evident both by report and by the quantities of bones found in excavation of mounds and refuse heaps. No attempt has been made to identify the species to which these should be referred, but it is reported that the most common were: ducks, geese, brant, curlew, mud-hen, swan, crane, pelican, gull, and cormorant. Other birds were eagle, bald eagle, condor, buzzard, hawk, crow, raven, blackbird, bluejay, kingfisher, woodpecker, robin, and "turtle" dove. There were such large flocks of the last near Little river that the Spanish explorer Bodega named it Rio de las Tortolas.

Fish

The fish of this region include salmon, crooked nose salmon, steel-head, trout, bass, lamprey-eel, herring, halibut, smelt, sardine, flounder, rock cod, shark, dogfish, stingray, and sturgeon. Jim Brock, a half Wiyot, half Chilula Indian, of Blue Lake, stated that when he was a boy they used to eat more fish than elk or deer, and lower down the river the proportion of fish eaten would doubtless be greater than at Blue Lake. The statement is made by a white man that "you could load wagons with salmon that got stalled on Mad river. I heard a man report once that he was afraid to drive a horse across Mad river the salmon ran so thick. At the little sloughs near Arcata you could get salmon with pitch-forks and fork them on to the bank."

²¹ R. C. Buchanan, Number, characteristics, etc., of Indians of California, Oregon and Washington; report dated Aug. 1, 1853, 34 Cong. 3 sess., serial no. 906, doc. 76, p. 24.

Whether the reader is inclined to take this as literally correct, a true fish story, or as a figure of rhetoric, makes little difference. If we ourselves had been present at some of the runs in those days we would doubtless have been led to use equally expressive language. Though salmon was the chief food fish, sturgeon was important enough to furnish the Athapascan name for site J, *klokwō'-seskō-ten*, "sturgeon-?-place."²² Here there was shallow water where the Indians lined up and speared the fish as they passed.

Eel river, being the fourth largest river in California, was an excellent stream for fishing, and here was gathered the bulk of the Wiyot population. The river was named by the whites from the abundance of lamprey-eel which furnished a supply of food to the starving party of explorers with L. K. Wood. The first salmon cannery on Eel river was established in 1853 by Dungan & Denman, and by 1858 half of the salmon packed in the state came from this river. In the early part of the fall fishing season of 1859 the newspapers²³ report that eight companies, all within four miles of the mouth, employing one hundred men, had already caught over 1200 barrels, and that before the end of the season they expected to catch over 6000 barrels.

The fishing grounds of the Indians were not limited to the rivers, for the ocean shore furnished an abundant supply of fish as well. The *Crescent City Herald*²⁴ in 1857 described a school of fish, including smelt, sardines, and other fish so small that ninety could be dipped up with one sweep of a cigar box. The shore at Crescent City was covered with fish a foot deep. Judging from the actions of water fowl, the fish extended three-quarters of a mile seaward, and they were so numerous that three men found it impossible to row a skiff through them. Methods of surf-fishing are described in a section to follow.

The Wiyot were preëminently a fisher folk, and no doubt the prehistoric people of this region were the same, as is evidenced by the quantities of fish bones in the excavated site, though there was no special stratum of fish bones, except one pocket at the depth of three and a quarter feet around a whale vertebra. As a rule the fish bones were evenly distributed throughout the mound, usually in such small

²² For the use of hyphens and question marks in the translation of Indian stems see remarks preceding the Lists of Geographical Names.

²³ San Francisco Bulletin, Apr. 14, 1858; Dec. 4, 1858; Nov. 19, 1859, copied from Humboldt Times, published in Eureka.

²⁴ Copied by San Francisco Bulletin, Aug. 26, 1857.

fragments that they were inconspicuous. However, their presence was made plain by putting the mound material through screens. The results obtained by screening will be more fully discussed later under the heading of Composition of the Mound. At the depth of three and a quarter feet there were pockets of fish scales too conspicuous to need screening.

Mollusks

The mollusks obtained from the excavation on site 67, as identified by B. L. Clark, are given in the order of their apparent abundance, no exact measurement being made.

- Paphia staminea* Con., hard-shelled clam, carpet-shell.
- Cardium corbis* Mart., heart-shell, basket cockle.
- Schizothaerus nuttallii* Con., Washington clam.
- Macoma nasuta* Con., soft-shelled clam, bent-nosed macoma.
- Saxidomus nuttallii* Con., giant saxidome.
- Mytilus edulis* Linn., soft-shelled mussel, edible mussel.
- Epiphragmophora fidelis* Gray, land snail, faithful snail.
- Natica lewisii* Gld., sea snail, moon-shell.
- Haliotis rufescens* Swains., red abalone.
- Olivella biplicata* Sby., purple olive-shell.
- Dentalium pretiosum* Nutt., dentalium, tusk-shell.
- Hinnites giganteus* Gray, purple-hinged pecten, rock-oyster.
- Zirphaca crispata* Linn., rough piddock.

The first six comprised the food species from which the mound was built up, and of these the mussel was rather negligible in quantity. The land snails were found only in what were at one time the bottoms of house-pits, now filled in with recent material to a depth of two feet. In each pit there was a distinct layer containing many of these shells in unbroken condition. The house pits formed a particularly moist and favorable habitat for this species. The sea snail was not numerous, there being only fifteen specimens from the upper three feet, and only fifty specimens at a depth of three to six feet.

Abalone was present usually as an artifact, though there were a few fragments that showed no signs of workmanship. Abalone is practically limited to the coast to the south of Cape Mendocino, though a few rare specimens have been found on the rocks about Trinidad bay. The olive-shell is usually found as a bead in association with human remains, though a few which showed no signs of workmanship occurred in streaks of sand. It is considered probable that these were brought to the mound quite unintentionally in sand, which was transported thither for some reason or other. The den-

talium shells were found only in association with human remains. They are of a species obtained rarely from the waters of Puget sound and northward, and used as money by most of the Indians of the Pacific slope. There were but three specimens of the peeten, one being found on the surface of the mound, the other two in association with human remains. The piddock was found only as traces in samples of mound material analyzed by E. W. Gifford.

Sites 10 and 13 contained the same six food species as site 67, and in addition the razor-shell, *Siliqua patula* Dixon, and a few large mussels, *Mytilus californianus* Con. At Brainards Point there is a hill reaching out through the marsh exposing a bluff to the waters of the bay, and here, on one of the village sites, 49 or 50, two specimens of the rough piddock, *Zirphaca crispata* Linn., were found.

The soft-shelled mussel, *Mytilus edulis* Linn., the most abundant species in the majority of the San Francisco bay mounds, takes a rather backward place on Humboldt bay, where there are a few deposits several inches in thickness on the North Spit and on Eureka slough. Site 59 had a deposit seventy-five feet long and eight inches deep largely composed of mussel shell.²⁵ The mussels of the bay were not attached to rocks, for there were none, but rather to the trunks of trees washed into the bay by freshets.

Other Fauna

Five samples of crab claws were obtained from site 67 at depths down to four and a half feet, while a few of the samples analyzed showed small traces of crab shell. One specimen of the barnacle parasite of whales, *Coronula diadema* Linn., was found at a depth of three feet, while three other specimens were at a depth of five and a half feet. On site 11 or 12 there was a quart or two of these in one heap. Other species of barnacles were found only as small traces.

Ethnopalaeontology may be an unusual topic, but a few words might be said under this heading. Among other Indian relics obtained by Robert Gunther from site 68 is a tooth of a mastodon. This was possibly obtained by the Indians at the base of Red Bluff, for George Davidson²⁶ says he found specimens of the "primitive

²⁵ E. W. Gifford (present series, XII) gives the composition of this deposit as follows: 39.73% mussel, 2.05% barnacle, 26.68% other shell, 12.08% ash, .21% charcoal, .01% fish bones, and 19.23% residue.

²⁶ George Davidson, *Pacific Coast Pilot*, California, Oregon and Washington, p. 102, 1869.

elephant" there in 1854, or it might have come from any one of several other fossil beds of the region. On Eel river above How creek there is a slide containing clam shell, abalone, etc. This place was called kotwāryūwok by the Wiyot. To the south of Little river along the ocean coast there are bluffs, over one hundred feet high, composed of blue clay, and filled with springs which cause slides, exposing fossil shells. There is another place on Mad river above Maple creek known as Blue Slide.

DISCOVERY AND SETTLEMENT BY WHITES

EARLY VOYAGES

The first navigator to pass up the northern California coast was Ferrelo, Cabrillo's pilot, in the winter of 1543. He and his associates described San Diego bay, Santa Barbara islands and adjacent coast, the mountains of San Francisco peninsula, a great gulf to the north of them, with a suspicion of a river, perhaps from muddy water, Point Reyes, Point Arena, and a few other faint glimpses of the coast as far north as the mouth of Rogue river, Oregon. Because of severe storms he was almost shipwrecked, and to the northward was compelled to keep seventy or eighty miles off coast.

Francis Drake passed southward along the California coast in June, 1579. His ship was leaking badly, so that after anchoring in Cheteo Cove, near the northern boundary of California, he spent twelve days in the "thieke and stinking fogges" searching for a safe harbor where he might make repairs. But he discovered nothing until he reached Drakes bay, thirty miles northwest of San Francisco.

Vizeaino passed Cape Mendocino in 1603, but after this the Spaniards did nothing for one hundred and sixty-six years, until, aroused by jealousies caused by the Russian exploration of Alaska, they began to plant their missions in California in 1769. Then voyages of exploration up the coasts of California, Oregon, and Washington became quite numerous. Among these were expeditions by Perez, Ayala, Martinez, Haro, Artega, Fidalgo, and Quimper. But all of them failed to discover any very important details of the coast.

Bodega in 1775

The only early Spanish voyage of any interest to us is that of Bodega in 1775, who spent the time from June 9 to June 20 an-

chored in Trinidad bay.²⁷ This was a sufficient length of time to allow the explorers to chart the harbor, plant a cross on the hill, explore several miles of Little river, and make valuable observations on the rocks, tides, fish, birds, mammals, forests, flora, and inhabitants. There was a village almost within arrow shot of their point of anchorage, and during their stay, from more distant villages "more than 300 came down in different parties, with their women and children."²⁸ Several pages of description are devoted to the customs of these Yurok Indians, as they are now called—their clothing, ornamentation, tattooing, laws, government, language, canoes, houses, arms, and food.

The explorers believed themselves to be the only foreigners whom these Indians had ever seen, yet they mentioned some foreign influence in these words: "Their arms are chiefly arrows pointed with flint, and some of them with copper or iron,"²⁹ which we understood were procured from the N." Another edition³⁰ mentions a further use of iron in the following language:

The arms which they used are arrows with flint points, knives of the same material, and some imperfect iron ones like a machete with wooden handles, it being understood that they provided themselves with these from farther north. They wear them hung around their necks, falling over their shoulders or tied to their wrists.

From these references to iron and copper it would appear to us that ships had previously stopped either at Trinidad bay or not far to the north. In the early days of exploration as well as in the succeeding days of the whale trade and fur trade, and also even after the establishment of trading posts by the Hudson Bay Company on the Columbia river, scraps of iron, barrel hoops, files, cooking utensils, and metal in any other form, were the most eagerly sought articles of trade. This metal was fashioned by the Indians into the shapes that they desired. There are at the University museum half a dozen iron knives ranging in length from thirteen to twenty-six inches.

²⁷ Journal of a Spanish Voyage in 1775, by Don Antonio Maurelle, second pilot of the expedition; translated by Daines Barrington in *Miscellanies*, London, 1781, pp. 471-534. A somewhat different account of this voyage is given under the title: *Primer viaje de... Bodega y Quadra... año de 1775*, published in *Anuario de la dirección de hidrografía*, año III, 1864, pp. 279-294, Madrid, 1865. There are some discrepancies in the dates, these here given being from the translation by Barrington.

²⁸ *Ibid.*, Barrington edition, p. 487.

²⁹ *Ibid.*, p. 489. The translator in a footnote states that similar arrow points made of metal could be seen in his day, 1781, in Sir Ashton Lever's Museum, in collections from St. George's sound, N. Lat. 50°, i.e., Vancouver island.

³⁰ *Ibid.*, Madrid edition, 1865, p. 284.

They were obtained from the Yurok and Tolowa Indians. They have elk horn handles and appear in every way to be of Indian make.

From the Spanish accounts quoted above there is a suggestion that the knives were used by the Indians of Trinidad bay for purposes of ostentation, suspended from the neck in a similar manner to that in which ceremonial knives of obsidian are worn in dances. At that date metal would quite likely be too highly prized by the Indians to the north to be parted with in trade between themselves and their southern neighbors.

In the matter of clothing, ornamentation and the like, the Indians at Trinidad bay in 1775 are described as having customs similar to those which were found to prevail from Humboldt bay to the Klamath river at the time of the American settlement. At the present time elderly women are to be seen at Humboldt bay with three vertical tattoo marks on the chin, though in almost all other respects these Indians have adopted the white man's ways. Of the houses at Trinidad bay in 1775 we have this description:³¹

Their houses were square, and built with large beams, the roofs being no higher than the surface of the ground, for the doors to which they make use of a circular hole just large enough for their bodies to pass through. The floors of these huts are perfectly smooth and clean, with a square hole two feet deep in the center, in which they make their fire, and around which they are continually warming themselves, on account of the great cold.

As to the use of canoes at Trinidad bay we will quote as follows:³²

On the 14th [July 1775] I awaited the high tide in order to leave. At this time numerous canoes of Indians gathered, very tractable apparently, who with the greatest docility sold their pelts to members of my crew. . . . After this reciprocal traffic I sent six men ashore well armed with the boatswain, to cut wood and timber . . . but on disembarking for their tasks more than 300 Indians attacked them, surprised them, and in my opinion, killed them; . . . but without any boat in my ship, and without the aid of either of the frigates, they being so far away that we could scarcely see them, and being without sufficient number of men, I had no recourse, at the time, than consider means of returning to punish the attack; for this purpose I prepared to set sail.

The savages observing my movements, and perhaps realizing the few persons who remained with me, and being moreover encouraged by the smallness of the sloop, embarked in about 10 canoes with 28 or 30 Indians in each, and approached my vessel with the object of impeding my departure. . . . Having succeeded in killing six Indians, wounded others, and overturned their canoes I succeeded in setting sail.

³¹ *Ibid.*, Barrington edition, p. 485.

³² *Ibid.*, Madrid edition, 1865, p. 285. This account of hostility does not agree with the Journal as translated by Barrington, which says: "we never observed anything contrary to the most perfect friendship and confidence which they seemed to repose in us. I may add, that their intercourse with us was not only kind, but affectionate."

Vancouver in 1793

In 1790 the king of England sent out two ships under command of George Vancouver to explore the Pacific. These ships were anchored in Trinidad bay May 2 to May 5, 1793, while the party spent two days on shore. Vancouver described the Indians here in the following words:³³

The next morning I went on shore . . . Most of the inhabitants of the village were absent in their canoes, trading alongside the ship, leaving a few old women only to attend us; these . . . I accompanied to their habitations, which consisted of five houses built of plank, rudely wrought . . . neither wind nor water tight. . . . Their roofs . . . rise with a small degree of elevation to a ridge in the middle . . . The upright boards forming the sides and ends of the house are not joined close enough to exclude the weather, the vacancies are filled up with fern leaves and small branches of pine trees. The entrance is a round hole in one corner of the house close to the ground, where with difficulty a grown person can find admittance. . . . Four of these houses seemed to have been recently built, and were on a level with the ground. These appeared to be calculated for two families of six or seven persons each; the other, which was smaller and nearly half underground, I supposed to be the residence of one family, making the village according to this estimate to contain about sixty persons. . . . Their merchandise consisted of bows, arrows, some very inferior sea otter skins, with a scanty supply of sardinias, small herring, and some flat fish. Their numbers during the forenoon seemed to multiply from all quarters, particularly from the southward, from whence they arrived both by land and in their canoes. These people seemed to have assembled in consequence of signals that had been made the preceding evening, soon after the last party returned to the shore. A fire had been then made, and was answered by another to the southward on a high rock in the bay; the same signal was repeated in the morning, and again answered to the southward. . . .

The number of inhabitants belonging to the village seemed to be about sixty; the others, who came from the southward, were all armed with bows and arrows. These they at first kept in constant readiness for action, and would not dispose of them, nor even allow of their being examined by our people. They seated themselves together, at a distance from our nearer neighbors, which indicated them to be under a different authority; at length however they became more docile and familiar, and offered for sale some of their bows, arrows, and sea otter skins. The bow and arrows were the only weapon these people appeared to possess. Their arrows were made very neatly, pointed with bone, agate, or common flint; we saw neither copper nor iron appropriated to that purpose; and they had knives also made of the same materials. . . .

Their clothing was chiefly made of the skins of land animals, with a few indifferent small skins of the sea otter. All these they readily disposed of for iron, which was in their estimation the most valuable commodity we had to offer.

The high rock where the fire was built was doubtless Little River Rock, 120 feet in elevation and less than a mile from both sites 1 and 2 (map, pl. 1). The half underground house, described also by Mau-

³³ George Vancouver, *Voyage of Discovery, 1790-1795* (London, 1798), II, 241-243, 247.

relle as the sacred palace of their ruler, is doubtless what is known to us as the sweat-house. Maurelle and Vancouver agree on many points of description. Their only disagreement is in regard to the use of metal for some of their arrow points, yet here the statement of Maurelle is too circumstantial for doubt as to its correctness. The apparent disagreement in regard to houses can be accounted for by supposing that in Maurelle's time the houses were nearly buried in clam and mussel shell, while eighteen years later they have been rebuilt.

Winship in 1806

In the early part of the nineteenth century the Russians in Alaska engaged a number of American "tramp" ships in trapping sea-otter on the coast of California and lower California. These ships sometimes brought back from two thousand to five thousand sea-otter skins, besides what they stole. There are accounts³⁴ of their visiting San Francisco bay, San Luis Obispo, and ports of Lower California, where it seems they obtained the most skins.

Quite a quantity of sea-otter bones are found in some of the San Francisco bay shellmounds, while less than half a dozen were obtained from the archaeological sites of Humboldt bay. Vancouver mentions the "very inferior sea otter skins" of Trinidad bay, and to make the emphasis doubly strong, speaks a second time of the "few indifferent small skins." This explains why the Russians so hastily passed by this part of the coast. However, to them belongs the honor of having first discovered Humboldt bay.

In May, 1806, Captain Jonathan Winship came to Sitka with an American ship and the Russian governor made a contract with him to take one hundred Aleuts with fifty small boats on a ten to fourteen months' hunting trip to California. On this trip Humboldt bay was discovered and charted. This chart was combined with that of Trinidad bay made by Vancouver, and published in an atlas compiled by Tebenkof in 1848. On page 42 of the explanatory volume this chart has the following description:³⁵

About eight and a half miles from the port of Trinidad [seventeen and a half miles really] is found the entrance to the Bay of Indians, called the entrance of Resanof. According to the Colonial Documents of the Russian American Com-

³⁴ George Davidson, *Discovery of Humboldt Bay*, in *Trans. and Proc. Geog. Soc. Pacific*, 1891, gives a bibliography and summary of the chief events.

³⁵ Tebenkof, *Atlas of the Northwest Coast of America, Aleutian Islands and North Pacific*, St. Petersburg, 1852; subchart to chart XIII, reproduced as plate 2 in this paper. The quotation is from George Davidson, *Discovery of Humboldt Bay*, *op. cit.*, p. 11.

pany, it appears that it was discovered by citizens of the United States. In 1805 there was in it (on an American vessel), under the command of Winship, a sea-otter party of Aleuts, under the leadership of Slabodtshikoff, which was met by the Indians inimically. This bay has not been carefully surveyed, but it is known that it is of considerable size; and somewhat resembles the Bay of San Francisco, except that the entrance to it for vessels of large class is not convenient, and with strong southwest winds it is even impassable for any kind of vessel. The depth at the entrance is two fathoms, and then the ocean swell breaks on the bar.

Lacking any narrative of the expedition, the chart itself furnishes us with our only evidence as to what the party did while in the bay. The writer has made several trips about the bay in a rowboat from the northernmost to the southernmost extremities, and feels himself competent to make the unqualified statement that Winship never spent more than two days inside the bay, because if he had stayed longer he would have discovered more of the details, though he was almost faultlessly accurate in charting everything that he did see, even to clumps of trees on Gunther island, and breaks in the hills where streams came down. His movements during a two days' stay were probably as follows:

He entered the harbor, taking soundings as he proceeded up the channel to his point of anchorage between Samoa and Gunther island. The next day, with the incoming tide, he proceeded up the bay in a rowboat as far as an Indian village on the North Spit, perhaps on site 29, which, being situated on top of an old sand-dune ridge, would be conspicuous from the bay. He did not go far enough to see Mad River slough. From this Indian village, at the time of high tide, he crossed the bay to Brainards Point, where there was another village conspicuous from the bay—site 48, 49, or 50. Here he climbed the hill, saw Jacoby creek to the north, and made his sketches of the northern part of the bay. From here he returned to the ship, keeping well to the west of the islands, as would be to his advantage in reaching his ship if the tide were falling.

The abnormal projection of the three islands to the northward shows that they were sketched while the tide was low, exposing the mud flats. Two of the most prominent archaeological sites (67, 68) of the region are situated on Gunther island, and it is inconceivable that one or both of them were not occupied by Indians in 1806, because the island is one of the most advantageous locations on the bay. The mounds of these sites were covered with trees or bushes, except for the area immediately about the houses. The approaches for canoes were on the southeastern rather than on the northwestern side. The Russians did not enter the channels to the southeast of the islands, for if they had they would have quickly seen that the shore of the bay here ran east and west, rather than north and south. They also failed to see Eureka slough. Under these conditions the villages on Gunther island, though so close to the ship, could have been overlooked, but on the other hand the settlements could not have missed being discovered by some of the Aleuts with their fifty boats if the ship had remained anchored for more than one day near the island. It would have been a most natural thing for all who had had no duties assigned to them to spend the first day on the North Spit, or on the shore below Eureka.

The second day, the officers, after visiting a village somewhere near Bucksport and another near the entrance to the harbor, and finding that there were no furs of value among the Indians, would naturally be inclined to proceed on their voyage, but before leaving the bay they doubtless ascended Red Bluff so as to get a look at the south end of the bay. They saw and entered on their chart the position of a slough behind Red Bluff, but did not see Elk river, unless Elk river at that time had its outlet through the slough. An examination of the United States Coast and Geodetic Survey chart of 1858 (see pl. 3) shows conclusively that the slough was an outlet to the river at one time, while at other times the outlet has perhaps even been to the north of Bucksport. As to the south end of the bay, none of the details, such as Salmon creek, Hooktown slough, or Table Bluff, could be seen from the top of Red Bluff, though the general rounding outline of this part of the bay could be determined.

After Winship left, it is not known that the Russians visited the bay again, in fact it seems to be the testimony of the Indians³⁶ that no other ship entered the bay previous to 1850.

Gold Seekers' Rush in 1850

It is an unsettled question whether Hudson Bay Company trappers ever saw Humboldt bay or not. In 1830 to 1835 there were trappers on Rogue, Scott, and Trinity rivers,³⁷ and doubtless on Trinidad bay. The writer is hardly qualified to express an opinion, but will say that he is yet to be convinced that any of them visited Humboldt bay. The Wiyot, Tom Brown, born about 1840, on site 7, a village much connected by intermarriage with the Yurok of Trinidad bay, was living as a boy on Gunther island, site 67, when the ships of the gold seekers entered the bay. He ran to his mother to ask what the strange white spots on the water meant, and she knew because she had seen Russian ships off Trinidad. This was the only mention by Indian informants of whites before the time of the gold rush, though if inquiry had been made it is barely possible that other facts might have been brought out.

The party of eight miners previously mentioned as coming from Trinity river, discovered the bay on December 20, 1849,³⁸ and were led by the Indians from the south end of the North Spit around the bay, and thence to the present location of Fortuna. After being put across Eel river, near the junction of Van Duzen river, they continued on their way to San Francisco, meeting with many mishaps, and one dying of starvation. The following quotation from the narrative of L. K. Wood is of interest:

³⁶ L. K. Wood, *op. cit.*, p. 95. See the quotation below.

³⁷ W. W. Elliott & Co., *op. cit.*, p. 129.

³⁸ L. K. Wood, *op. cit.*, p. 95.

On the 21st we made our camp close to the bay, and opposite the present town of Bucksport. We had been in camp but a short time when the chief *Ki-we-lat-tah*, alias "Old Coonskin," his two wives, and his brother *Shasepec*, came in a canoe from the headland known as Humboldt Point [site 79], to see us, and from them we learned that no white person had ever been on the shores of the bay before, but that a long time ago, when they were children, a sail vessel had entered, remained a short time, went to sea and never returned. During our whole stay here of about ten days, the chief and his party remained with us night and day, except the two days we were camped at the head of the bay where Arcata now stands.

We left the bay on our way south on the 1st day of January, 1850, and arrived at Sonoma on the 17th day of February, from whence two of our party went to San Francisco. The others immediately set about recruiting a company to return, and soon succeeded in making the party about thirty strong, and in the early part of March, 1850, when about to start, four of the recruits were arrested for murder (Indian killing), which delayed us. (Six should have been arrested, and five of the six hanged, as they never quit Indian killing, but kept it up after reaching here, which was the first cause of our Indian troubles). These worthies were taken to Benicia and confined on board a man-of-war, but by some means were released and soon returned to us, and we made our start the latter part of March, reaching the bay about the 19th day of April, 1850. We saw that the schooner *Laura Virginia* was inside, and that Humboldt Point was occupied by her party. They did not see us, and that they should not, we shifted our course.

This party divided and staked out the town sites of Arcata and Bucksport. Previous to this even the whereabouts of the port described by the Spaniards as Trinidad bay was unknown to American sailors. During the winter of 1849 no less than fourteen ships were fitted out to locate such a bay if it really existed, and a contest began to see which would be the first to discover anything of advantage. A part of the "Cameo" crew, in a rowboat, was the first to enter Trinidad bay, where they were abandoned by the rest of the crew on the ship, while the "Laura Virginia" was the first to discover the mouth of Klamath river, April 3.

The "Ryerson," the "General Morgan," and a whaleboat commanded by Captain McDonald, entered Eel river within a few days of each other, April 5 to April 9, and sent land parties north to Humboldt bay. A land party belonging to the "Laura Virginia," coming from Trinidad bay, located the entrance to Humboldt bay April 7; and on April 9 the "Laura Virginia" entered the harbor.³⁹ Numerous other ships came in after her, and within two months several parties arrived overland. The white men seemed to come from every direction at once. Each of these parties entered the real estate business and began to stake out town sites lining the shores of Eel river, Humboldt bay, Trinidad bay, and Klamath river, and the Indians took what was left.

³⁹ W. W. Elliott & Co., *op. cit.*, pp. 98-103.

INDIAN NEIGHBORS OF THE WIYOT

WIYOT BOUNDARIES

As already shown, the lowlands about Humboldt bay have two very effective barriers separating them from the rest of California, namely, physiography and vegetation. The resulting isolation favored the development of a specialized form of language known as Wiyot.⁴⁰ There was only one dialect for the region bounded on the north by the valley of Little river, and on the south by Bear River mountains. To the east the same dialect was spoken along Mad river for two or three miles above Blue Lake, and up Eel river for a mile or two above the mouth of the Van Duzen. On both of these rivers the eastern boundary of the Wiyot is where the deep cañons begin.

Wiyot informants stated positively that they never fished on Little river. To the south of Little river there was considerable prairie, which abounded in game and vegetable foods, especially the "wild potato," the name of which, *topōdērōs*, was also the Wiyot name of Lindsey creek, at the head of which was a camping place, site R, for gathering these food products. All of this prairie land should be regarded as Wiyot territory, while the lower waters of Little river must be considered as Yurok possession.

THE YUOK

To the north there was an important settlement of the Yurok on Trinidad bay, where in former years, there was a large shellmound which is now reported to be washed away. Another but less important village was at the mouth of Luffenholtz creek (pl. 1, site 1). This village was called *tā-pel-o* by the Wiyot, because arrow points were made here from flint, *pel*, broken from a boulder on the shore. A third Yurok settlement or camping place was at the mouth of Little river, where there is a small deposit of the large mussel, *Mytilus californianus*. Plate 5, figure 1, shows the mouth of Little river with a

⁴⁰ Wiyot is the native name for the Eel river delta. It has slightly varying forms of pronunciation in the different languages of the region, and was first applied to the native inhabitants of the delta by George Gibbs, *op. cit.*, p. 422. By more recent writers the name has been applied to all who speak this language, whether living on Eel river, Humboldt bay, or Mad river. Different Wiyot informants show considerable variation in the pronunciation of their language, but this is probably individual variation rather than dialectic difference. Stephen Powers, *op. cit.*, pp. 96, 101, noted two variations. Viard or Wiyot, on lower Humboldt bay and on Eel river, and Pat'awāt on Mad river, both however "very nearly identical."

large square rock and numerous smaller ones just around the first point. They lie directly in front of the village site, to which the Wiyot gave the name *plet-kosom-ili*, "rocks small."

Social Barriers to Inter-marriage

The Wiyot appear to have always had friendly relations and some inter-marriage, with the Yurok. Inter-marriage, however, was somewhat hindered by the social customs common to the northwest coast, which made one person belong to the wealthy aristocracy, and another to the poor class. Wealth was reckoned in dentalium shells, long obsidian knives, scalps of the woodpecker, white deer skins, and other objects. The white deer skins are esteemed in northwest California because of their rarity.⁴¹ Wiyot informants knew of only three having been killed on Mad river, one of these being sold to the Klamath river Yurok, and the two others to the Hupa. Trinidad, which was Yurok, was reported to have had many "big man," that is, wealthy ones, while Mad river and Humboldt bay had but few moderately rich men. The village at the mouth of Eel river (site 29) was the most noted of all Wiyot settlements for the number of its rich men. Tom Brown, belonging to the leading family of site 7 on Mad river, paid one horse and \$250.00 in American money for a Yurok wife from Big Lagoon. It will be readily understood that Yurok wives of the better class were entirely beyond the means of most Wiyot men, and the Wiyot being poorer than the Yurok, the export of women was greater than the import.

Yurok-Wiyot-Algonkin Linguistic Stock

The Wiyot and Yurok languages were until recently considered two independent and unrelated stocks of speech. Dr. A. L. Kroeber in 1910 made the following statement:⁴²

Loose unification of languages that may be entirely distinct, based only on general or partial grammatical similarities, is unwarranted. The structural resemblances between Yurok and Wiyot are however so close and often so detailed, as will be seen, as to create a presumption that lexical and genetic relationship may ultimately be established.

In 1913 Dixon and Kroeber made the following statement in volume 15 of the *American Anthropologist*: "Renewed examination

⁴¹ Albinos. See P. E. Goddard, present series, I, 84, 1903. The San Francisco Bulletin of Nov. 24, 1860, says that an American killed two white deer on the Klamath and sold them to the Indians for \$350.00.

⁴² A. L. Kroeber, present series, IX, 415, 1911.

reveals sufficient lexical correspondences between Yurok and Wiyot to make certain the genetic unity which structural similarities have previously indicated as possible." In the same volume of the *American Anthropologist*, Edward Sapir published a paper, the purpose of which was: "to show that not only are these so called stocks genetically related, but that they are outlying members—very divergent to be sure, but members nevertheless—of the Algonkin stock."

How they became so far separated from their eastern relatives it is impossible to say, but they must have been separated for a very long time. The Cheyenne, Arapaho, and Siksika or Blackfeet, until recently considered the westernmost members of the Algonkin stock, are found at the eastern base of the Rocky Mountains over seven hundred miles away.

ATHAPASCAN NEIGHBORS

To the east and south of the Wiyot lived people speaking the Chilula, Whilkut, Nongatl, Sinkyone, and Mattole dialects, all of which are variations of the Athapasean form of speech. The evidence of language would indicate that their ancestors came originally from western Canada. They are often reputed to be of greater physical and intellectual vigor than the lowland Indians about the bay, to whom they appear to have generally assumed a rather superior and hostile attitude, and by whom they were feared. Who the inhabitants of the uplands were before the arrival of the Athapaseans can be only a matter of speculation. They might have been ancestors of the Wintnu, the Yuki, or the Pomo. Whoever they were, because of their environment, they must always have been culturally distinct from the lowland people about Humboldt bay. The natural barriers, especially the redwood belt, would have always tended to keep the two apart. Hence the territory within the boundaries of the Wiyot language forms a convenient geographical unit for archaeological as well as ethnological study.

The Chilula

To the northeast, on Redwood creek, lived the Chilula. The writer is also inclined to regard the upper part of Little river as Chilula territory, though he has no very definite proofs to offer, except to say that the Chilula have a general reputation for establishing camping places wherever there was no one to check them. It appears that they frequently fought with both the Yurok and the Wiyot. At a

time since the American settlement they almost annihilated a Yurok rancheria on Big Lagoon.

The Wiyot at Blue Lake (site z) were nearly exterminated by an attack only a year or two previous to the settlement of the whites, who reported seeing thirty or forty graves here as the result. After this attack some of the surviving women lived near Blue Lake with Chilula husbands. Whether or not these women were married before the fight is not known. Jim Brock, one of our informants, had a Chilula father from Redwood creek, while his half brother, Kneeland Jack, is a full blooded Wiyot. At the time of the massacre, Blue Lake Bob was a baby or a child and wanted to cry while in hiding, but his mother held her hand over his mouth and so escaped detection. Bob was a boy in 1850; so the massacre could only have been a few years previous. Jim Brock volunteered the information that there was a time when the Chilula killed the Wiyot on opportunity.

The Arrow Tree.—One mile east of Korbel there is a redwood tree (pl. 1, site AH, and pl. 6, fig. 2), now dead, a little over eight feet in diameter. This tree was formerly "stuck so full of arrows that it was like a porcupine up to a height of thirty or forty feet." These "arrows" or darts were made on the spot from shoots of huckleberry, *Vaccinium*, or of hazel, *Corylus rostrata*. The writer obtained one specimen from a height of 22 feet, which was 16½ inches long and ½ inch in diameter. Two other specimens were from heights not exactly measured, but anywhere from 7 to 12 feet above the ground, the smallest specimen being 8¼ inches long and ⅜ of an inch in diameter. They were sharpened at both ends and hurled at the tree until they stuck in the soft bark.

John Stevens and Jim Brock were questioned concerning the significance of the tree, but there is reason to believe that they were a little reserved and did not tell the full story, for others report that John Stevens has told them more than he told the writer. These other informants were Mr. J. P. Blake and Mrs. Olive Stokes, both well qualified to speak on the subject. The full story is about as follows:

The Indians have a tradition, [or perhaps more properly a myth, partly based on facts, for real tradition is short lived] going back to the time when the tree was young. Two tribes were at war, the interior tribe and the coast tribe; the interior tribe was defeated and peace was made at or near the tree, which afterwards was considered as a boundary.

Members of both the Chilula and Wiyot tribes passed the tree on occasion, and as it was considered sacred, they left an arrow in its bark. At first the

arrows might have been real war arrows, but within the memory of living Indians they have been merely sharpened sticks. Gradually the original significance of the tree was partially lost sight of, and it became more and more an altar for worship and a place of prayer.

The men on passing the tree hurled the sharpened stick into the tree and made a prayer for good luck while making the trip. The women took a sprig of redwood and struck their legs with it, saying: "I leave you all my sickness," and then threw it at the base of the tree or stuck it in the crevices of the bark. There had accumulated a large heap of these, while the trunk bristled with the arrows, when a mischievous white man burned them, the fire spreading up the tree as far as the arrows went.

In more recent times the Chilula "used to come as far as the tree and no farther" except when bent on hostilities, while the Wiyot occasionally went to the top of the ridge and camped while killing elk or deer, snaring bear or panther, and gathering huckleberries, hazelnuts, acorns, and other food. The Athapasean name for the camping place or places seems to be the same as that for the tree, *tsē-inātūlwo-ten*, "sticks-?-place."

Whether or not there is any historical significance to the Arrow Tree, in recent times it has been only one of many such wayside shrines found from the Russian river northward. The informants stated that formerly there were many piles of brush, sticks, leaves, stones, or anything that could be piled up by passers along the trails over the Bald Hills and along the Klamath.⁴³

The Whilkut

Halfway between Blue Lake, and Cañon creek, there was a place called *tsē-tenā'tūlwo-ten* in the Athapasean dialect. There was never any village there, and in answer to inquiry Jim Brock briefly stated that the name had reference to "many rocks, *tse*, in the river there."⁴⁴ A great similarity will be noted between this name and that of the Arrow Tree, *tsē-inātūlwo-ten*, and it may be that this is another of the wayside shrines, where an adventurer cast a stone and prayed for a safe return when passing into strange territory.

A reference to the map shows what is a common condition among savage peoples, that is, that two separate tribes keep their villages at a respectful distance away from each other. Even at that, there is often a village composed of persons intermarried from both tribes,

⁴³ Cf. George Gibbs, *op. cit.*, pp. 103, 174; Stephen Powers, *op. cit.*, p. 58; P. E. Goddard, present series, x, 280, 1914; and P. E. Goddard, *Wayside Shrines in Northwestern California*, *Am. Anthr.*, n.s., xv, 702-703, 1913.

⁴⁴ On the map, plate 1, the Wiyot boundary line is made to pass through this place.

as is the case with the village of the Sinkyone farthest down stream on Eel river. The last Wiyot village upstream on Mad river (site AK), had only one plank house, and was chiefly used as a camping place. The first Whilkut village, who'ntā, was situated at the mouth of Cañon creek, over three miles by the bends in the river above the last Wiyot village. It was a small but permanent village, so John Stevens says, though he had seen but two bark winter houses there.

One of the chief Whilkut villages, and the place where John Stevens was born, was situated one and a half to two miles below Maple creek.⁴⁵ It was called ts̄-didis-ten, "sticks-?-place," and had ten or twelve houses. The redwood belt ended near here, though there was one clump of the trees two miles above Maple creek.

There were five houses, mostly bark, but some of plank, at the mouth of Maple creek, while on Boulder creek, one and a half miles above Maple creek, there were a considerable number scattered about on both sides of the creek and also up the creek. Hence the Maple creek district was a comparatively populous center.

Mr. Wm. R. Lindsey described both the houses and funeral customs near Maple Creek as he saw them in 1858. As a rule the bark houses were eight or ten feet in diameter, round and peaked at the top. There were other bark houses ten or twelve feet long, with a ridge pole. They had no houses made of planks, like those of the Wiyot, because pine could not be so easily split as redwood with primitive tools. After the coming of the whites and owing to the availability of better tools, the Whilkut made houses twelve or fourteen feet long of split pine mixed with bark, which was set on end and fastened with withes.

As for burial customs, a body was seen brought to the grave lashed to a board. One of the mourners pierced the nose with an awl, crossed two pieces of shell money in the nose, took a piece of charcoal and marked lines from the forehead to the breast, down each arm, and down the front of the legs, and then buried the body.⁴⁶

Between ts̄-didis-ten and Cañon creek there were six villages or camping places, but none of them could boast of having more than two plank houses, or two or three bark houses. Above Blue Lake, Mad river runs in a deep cañon, perhaps unsuitable for habitation, though there were deep holes in the river where fishing was good. John

⁴⁵ W. R. Lindsey informed the writer that about 1860 a party of whites raided a rancharia about one and a half miles below Maple creek and killed several. The San Francisco Bulletin of March 13, 1860, quoting the Humboldt Times, said that a rancharia opposite "The Slide," doubtless the same as "Blue Slide," was attacked and an unknown number, including "Washettes, a noted rascal," were killed.

⁴⁶ Stephen Powers, *op. cit.*, p. 88, being told by Mr. Hempfield, a pioneer of the region at the head of Cañon creek, that the Whilkut burned their dead, thought it probable that their custom was somewhat varied. P. E. Goddard, present series, I, 69-70, gives a burial custom of the Hupa similar to that of the Whilkut.

Stevens stated that a long time ago, before his father was born, there was a war in which the Chilua killed a number of Mad river people, but the writer failed to understand whether the latter were Whilkut or Wiyot.

On Kneeland Prairie, between the headwaters of Freshwater creek and Lawrence creek, there is an ancient site at a spring. Mortars, pestles, and arrow points have been found here; also a roughly worked stone about three inches in diameter, and globular, except for a slight projection on one side and a slight flattening on the opposite side. It bears some resemblance to objects found in central California and known as charmstones, though nothing similar has hitherto been known to occur in the northwestern part of the state. Without visiting the site, it is impossible to say whether it is a village site or whether the articles were left as offerings at the spring. Both the Wiyot and the Whilkut made use of the prairie for hunting and for gathering vegetable products, though they sometimes came into conflict in doing so. Site AM was a camp site for fishing on Freshwater creek, and for making excursions to the top of the ridge for acorns. About 1855 a party of Whilkut Indians from Kneeland Prairie and Lawrence creek went down and attacked this camp, with the loss of two of their number.

The Nongatl

The writer regrets that he has but little knowledge concerning the Athapasean Indians living on Lawrence and Yager creeks, and of the nature or usefulness of the country between these creeks and Elk river. Judging from the northern half of the Wiyot territory, we should expect to find occasional fishing camps on Elk river. We should also expect small patches of prairie with trails connecting them, and this would lead to some sort of relationship, either hostile or friendly, between the Wiyot and the Lawrence and Yager creek Indians, but owing to the lack of time no inquiry was made concerning this territory.

In answer to a letter of inquiry concerning the location of village sites in the Yager creek region, P. E. Goddard writes: "South and Middle Yager creeks belong in the Nongatl territory. North Yager and Lawrence creek seem to have belonged with the Whilkut." A manuscript map by Dr. Goddard at the University museum shows a group of six village sites on North Yager near where a military post, Camp Jaqua, was established at a date unknown to the writer, but

probably about 1860. These villages would have been in Whilkut territory according to Goddard, while four other villages on Middle Yager would belong to the Nongatl.

At the University museum are ten specimens of various colored flint fragments (numbers 1-19660 to 1-19664) obtained by Dr. Goddard at four different rocks situated on the ridge at the head of Salmon creek. The museum catalogue gives the Athapasean names of these rocks as senteldnũ, senata, eacnundul, and senegintei. There is also a specimen of flint said by an Indian to have been worked by Coyote. This was obtained from Salmon creek at a place called se-teinnabatse-teelindũ.

The Sinkyone and Mattole

The Athapasean Sinkyone, called Lokonkuk or Flonko by Powers,⁴⁷ had their main center at Bull creek, fifteen miles above Scotia. A village at Scotia called tokēnēwolok by the Wiyot is considered by the writer, though perhaps with insufficient reasons, to be in Sinkyone territory. One and a half miles below Scotia there were a few houses occupied by people who had intermarried with the Wiyot. The Mattole, who were also Athapasean, lived on Mattole and Bear rivers to the south of the Wiyot, with whom they seem never to have entertained friendly relations. An ancient site, where there was considerable shell with a few arrow points, was reported to the writer as being some four miles above the mouth of Bear river, on the side of a ridge.

WIYOT ETHNOGEOGRAPHY

In numbering the village sites on the map we begin with the archaeological ones, commencing in the north and following the coast southward, going up each succeeding river as we come to it. There were 115 archaeological sites located in Wiyot territory besides two in Yurok territory. A few were shellmounds ten to fifteen feet high and several hundred feet in diameter; others were shell deposits of varying thicknesses ranging down to only a few inches in depth; and still others did not have enough shell to be readily noticed, but were patches of ground with a slightly darker tinge of color than the land surrounding them, caused by the greater amount of organic material as well as mixture with charcoal. Because the soil of sites is of differ-

⁴⁷ Stephen Powers, *op. cit.*, p. 113.

ent character from ordinary soil, it is a favorite with gophers. On examination of the dirt at the mouth of gopher holes, small particles of shell and charcoal can be seen, as well as burnt stones and other evidences of former human occupation of the site.

A few sites were reported as places where arrow points or other artifacts had been ploughed out. These are popularly termed "battle-grounds" and are sometimes mentioned as such in works of ethnology,⁴⁸ but a moment's consideration would convince one that it is practically impossible to locate an Indian battleground. As Indian warfare is a rather petty affair and as arrows are used over and over again where practicable until broken or lost, the number of points left upon either a battlefield or hunting-ground would be rather negligible. At village sites or at places of manufacture the case is different. At one village site that the writer located in Nevada he found nearly a thousand more or less fragmentary specimens that had been broken, rejected or lost.

Besides the archaeological sites, there were other places occupied by Indians in modern times. The location of these was learned from living Indians, but on visiting the spot little or nothing could be seen, the reason being, perhaps, that they were occupied for only one generation, or for so short a time that no noticeable deposit of black soil or anything else was left behind. House-pits were so shallow in this area, except on shellmounds or sandy ground, that they are unreliable as guides.

Most of the modern village sites on Mad river, from its mouth to Blue Lake, were located by the help of Aleck Sam, born on site 7 in 1849, a few days before Wood's party arrived from the interior. We drove up one side of the river in a wagon, the sites being pointed out as we passed them. This was done in one day's time, so only in a few cases did we get out of the wagon to take a look at the exact spot. Hence some of these sites may possibly show archaeological signs also. The village sites about Blue Lake were pointed out by Jim Broek, born at site γ. Others were located by the writer while walking up the river from Blue Lake with John Stevens, who was born near Maple creek.

On Eel river two days were spent with horse and wagon in company with Dandy Bill, born on site 112, but living as a boy at different times on sites 90, 92, 102, 114, and αx. Owing to Eel river being such

⁴⁸ For example, P. E. Goddard, Notes on the Chilula, present series, x, 278, 1914.

an excellent fishing stream, probably always supporting a large population, and also owing to the fact that tidewater reaches to Fortuna, with many sloughs containing mollusks, one should find here numerous archaeological sites, were it not that the river bed is shifting. Possibly they have been formed and covered with silt during freshets, and perhaps the river has carried others away. In fact the river has changed its bed to such an extent that Dandy Bill could hardly pretend to locate some of these sites within half a mile of their correct position, and the writer might as well confess that he may have erred another half mile in locating them on the map, though the relative position of most of them can not be far wrong.

The modern village and camp sites are designated on the map with letters of the alphabet, following the coast and rivers from north to south in the same order as with the archaeological sites. There are 57 of them, but this does not include all of the modern settlements, because at least 41 of the archaeological sites were occupied in recent times as well, which would make a total of 98 modern Wiyot village and camp sites. Including both the archaeological and the modern sites, we have therefore a total of 172 known sites situated in Wiyot territory. Of these the writer obtained the Wiyot names of about one hundred, besides about forty Wiyot names of creeks, mountains, and trails. The Athapasean names of over fifty places and about twenty streams in Wiyot and Whilkut territory were also obtained. These names will appear in lists at the end of the description of the more important localities.

CHIEF WIYOT SETTLEMENTS IN 1850

The recent inhabitants were not uniformly distributed in villages of equal size, but for the most part were rather inclined to gather in centers of population. A small part of the population lived widely scattered, in settlements of one, two, or three families at a place. The chief centers of population were: Mad river mouth, sites 4, A, 7, and c; Mad river bend, sites i, j, k, and 9; Blue Lake, sites y and ap; Mad river slough, sites 33 and 34; vicinity of Eureka, sites 67, 68, 65, 58, 17, and 73; harbor entrance, sites 112, 77, 79; south end of the bay, sites 86, 92, and 102; and lastly, Eel river, sites aq, ar, au, av, aw, ax, az, and ba. This makes a total of thirty-two leading villages, which we will proceed to describe.

Sites Near Mad River Mouth

Site 4.—This village, located near the mouth of Mad river on the north side, is described by Wm. R. Lindsey as being a considerable town with a population of seventy-five or eighty in 1855. Most of the houses, which were of two kinds, those with shed roof and those with gable roof, were estimated to be from ten to sixteen feet long. In three cases houses were built close together so as to make rows forty or fifty feet long. The house-pits were eight inches or a foot lower in the center than at the perimeter. Others state that there were ten or fifteen houses in 1853. Tom Brown said that his father used to hold a "Jumping dance" there every summer for ten days, with gambling, games, and foot races by both men and women. This village was situated on a prehistoric site that was washed out not many years ago. The skulls exposed were not modern enough to restrain the Indian boys from taking delight in throwing rocks at them.

Site A.—This village was located near the mouth of Mad river, on the south side. A white informant stated that there were eight houses in 1856. Another informant visited the place about 1858 and several times afterwards when dances were held.

Site 7.—Site 7 is located north of Mad river, just west of Mill creek. Jim Broek of Blue Lake makes mention of it as a village of a dozen houses, whose occupants were especially friendly with the Trinidad people, doubtless because of intermarriage. He also described the abundance of bushes along the edge of the village, for which reason it was called *tet-ming-a*, "brush-edge," in Athapasean. The Wiyot name was *gwisok*.

As this village was the birthplace of two Wiyot informants, Tom Brown and Aleck Sam, the writer obtained some information regarding the number of habitations. There were here two sweat-houses and eleven dwelling houses, with the following occupants: 1, father of Tom Brown; 2, Brokearm, uncle of Tom Brown; 3, grandfather of Tom Brown, or Brokearm's father; 4, grandfather of Jimmy Barto; 5, grandfather of Frank Brown; 6, father of Lookin; 7, uncle of Lookin's father; 8, grandfather of Aleck Sam; 9, father of Aleck Sam; 10, Bighead; 11, four widows whose husbands had been killed by Chilula Indians. One house was also said to have been occupied by the uncle of Aleck Sam, but probably he was one of the persons mentioned above.

It would appear that there was as much or more aristocracy in this village than in any other in the northern half of Wiyot territory.

Tom Brown belonged to the leading family. His grandfather was born on site 7, and obtained a wife from Eel river. His father was the rich and influential man of the district during his lifetime, but he died during the childhood of Tom, so that his mother reared him at her old home on Gunther island, site 67, while his father's wealth in woodpecker scalps and dentalia went to his uncle, Brokearm, who gambled most of it away. Jimmy Barto also belonged to an aristocratic family, both his grandfather and his great-grandmother possessing wealth. While Tom Brown boasted of his ancestry, he said that the father and grandfather of Aleck Sam were poor. Aleck Sam's mother was from Elk river, and he claimed Mad River Bill of site 9 as his cousin.

There were no chiefs, properly speaking, that is, men invested with political authority, either among the Wiyot or any of their neighbors. But there were men who enjoyed distinction because of their wealth, and these exercised a sort of advisory influence not possessed by the ordinary man. These leading men are known by the whites of Humboldt county as "mauweemas." This, as well as the term for dentalium shell money, *allikochik*,⁴⁹ seem to be fully incorporated into the English language so far as this region is concerned. All disputes, even murder, were settled by the payment of dentalium—an arrangement which put the rich man at considerable advantage, since it enabled him to do about as he pleased and then "settle quick." Brokearm, also called Captain Joe, was the mauweema of the group of villages near the mouth of Mad river, and also of those on Mad river slough down to site 35. Captain Jim, the mauweema of the northern half of Humboldt bay, made a dance on Gunther island, site 67, in February, 1860, when the Indians were taken by surprise and massacred by a few lawless whites. But luckily for the people of site 7, they had a quarrel with Captain Jim, which had then not been settled, so none of them attended the dance.

Site 6.—This was practically an outlying portion of the village just described, but it had a separate name in both the Wiyot and the Athapasean languages. There was also a separate archaeological deposit consisting of dark colored soil and many rocks, with a few particles of shell and charcoal at the widely scattered gopher holes, situated some little distance up the hill from site 7. Neither site makes much of an archaeological showing, but of the two, site 6 reveals more

⁴⁹ A. L. Kroeber states that both terms are of Yurok origin, the first, *mcwimar*, meaning old man.

evidences of occupation, so that it may be considered the older and longer occupied of the two. But on the other hand, site 7 has been partly undermined by the river which has left a perpendicular bank twenty feet high and exposed an archaeological deposit of only a few inches in thickness. Hence it may be that nearly all of the archaeological evidence of the former importance of site 7 has been destroyed.

On site 6 there was one house-pit twenty-one feet in diameter and thirty inches deep. At the bottom of the pit, a foot below the surface, a pestle fragment was found, together with much charcoal, glass, tin, nails, and other refuse. It is said that Brokearm, who was so named because he had been shot in the arm by a white man, lived here as a blind old man until something over a dozen years ago, when his house caught fire and he was burnt to death, unable in his blindness to save himself.

Site C.—Located on the Samuel Turner ranch on top of a bluff to the east of Mill creek, this village contained five or six permanent houses. The Athapasean name, klōche-nā'lin-tin, "flat(?)-creek-place," was given because there was a flat place near the adjacent Mill creek. In the summer people gathered here from as far as Samoa and Bucksport to dry fish and dance, play games, shoot with bow and arrow, gamble, and do other things of a festive nature.

Sites at the Bend of Mad River

This was a very thickly settled district, with many villages so close together that, at the present time, it is difficult to identify them with the names of sites secured from native informants. Site 9, containing a considerable bed of shell, was the only one of these sites actually visited and located by the writer. It is located on the ranch of W. E. Clark, about the center of the southeast quarter of section 17, township 6 north, range 1 east. It becomes necessary to thus definitely locate this place, because there has been such a great change in the course of the river here, which formerly made a bend of over a mile to the south of its present channel. However, this change seems to be due to a definite local cause rather than to any general migratory character of the river bed, such as we find in the delta of Eel river. Mad river has a fairly definite channel.

The cause of the formation of this great bend seems to be revealed in the description of site H. Here a tremendous jam of logs had been piled up by the winter floods. It is possible that some generations ago, before the log jam was formed, the river had a straight channel

as at present, but that owing to the obstruction the river had to find a new channel. The bend to the south ran shallow, so that fish could be easily taken during the semiannual run, hence the unusually large population in the vicinity. The Indians burnt the jam at site H one summer. After that the place was a noted feeding ground for elk. There was also a good place for taking eels and salmon near this village, yet it contained only three houses within the memory of Aleck Sam. After the whites came, they cut a ditch across the peninsula-like bend, and the force of the current ripped out a new channel, tearing out great trees and straightening the river once more.

Site 9, Wiyot name *betsër*, had five or six houses with many people, according to Aleck Sam, and here his cousin, Mad River Bill, was born. The Athapasean name for the same place seems to be *tidil'tin*. The meaning of this is said to be "smooth river to catch salmon in."

Besides sites H and 9, Jim Brock mentioned three other sites, and Tom Brown two, but whether those mentioned by Tom Brown are the same as those described by Jim Brock, the writer is not at all certain. Diagonally across the river and downstream from *tidil'tin* (site 9) was *tāchenkālehwhē-ten* (Athapasean, site 1). This was said to be one of the largest villages. The name was said to refer to the Indians digging out and eating certain kinds of fern roots, *tāchenkā'*. The first village above the county bridge on the south side of Mad river, *klichibot* (Wiyot, site 1?), had a large graveyard and abounded in willows suitable for making eel pots.

Diagonally across the river downstream from *tidil'tin*, near a little creek, was another village, *klōkwō'-seskō-ten*, "sturgeon-?-place" (Athapasean, site 2). Here the Indians used to spear sturgeon. *Tokelērbōkn'* (Wiyot, site 2) seems to be the same place, except that in the description salmon is substituted for sturgeon, for here there was shallow water where the Indians lined up and speared the fish as they passed.

Opposite *tidil'tin*, at a prairie, was *klōkai-kemēklōk* (Athapasean, site 3), said to mean "they grow like wild oats." The wild oats, *klōkā'*, were gathered and pounded into meal.

From pioneers living in Arcata, the following information was obtained regarding the group of villages about the bend of the river. One stated that there were probably twenty houses, including one sweat-house, covered with earth, within two hundred to three hundred yards of each other, situated on both sides of the river. Another said that about all the Indians of this vicinity lived on an area of

thirty acres. A third informant, who was often present at their dances, estimated that two hundred to three hundred Indians gathered at their summer festivities, erecting very large conical bark and brush houses. At such times the square plank houses were but few in comparison to the temporary conical houses.

The leading Indian of this vicinity was called by the whites "Old Mauweema," and his son was variously known as Indian Billy, Short Billy, Bat Head Billy, Mad River Bill, and Skoyer Bill,⁵⁰ that is, good Bill (Yurok *skuyu*, good), since he was deemed good enough to be honored with a burial in Areata cemetery when he died several years ago at the age of about seventy-six. The community, in thus honoring him, endeavored to pay back in some measure the debt due him for what he had suffered when lawless members of the white race treacherously took from him in a single hour his wife, mother, sister, two brothers, and two little children.

After the massacre on Gunther island in 1860 three canoe loads of dead were buried across the river from the Clark place. Twenty years ago, when the place was purchased by Mr. Clark, there were 17 graves within 40 feet of each other on site 9, the position being marked by head boards 4 feet high, and foot boards 12 to 18 inches high, made of split stuff about 3 inches thick and 20 inches wide. When the ground was ploughed the following year, many glass beads and abalone pendants were found. Many graves were obliterated by sediment deposited by a freshet about 1875, when all the country about was flooded. But there were graveyards in the vicinity previous to the massacre, for twenty-five or thirty graves were seen on one site about 1850.

Sites Near Blue Lake

In the spring of 1850 the whites cut a trail from Areata to Mad river, thence along the river to Blue Lake, then past the Arrow Tree, site AH, over the ridge to Redwood creek, and eastward to the mines, part of the way following old Indian trails. Scattered along the river, between the bend and Blue Lake, there were half a dozen small villages or camps. That is, about every mile there was an Indian house or two. High hills flanked both sides of the river, and the forest was dense, so the population here was not large. But near Blue Lake the conditions were more favorable. There was here a

⁵⁰ There is a single unconfirmed report by a white man that "Indian Billy" died about fifteen years ago and was buried on the south side of Hall creek. Hence it is possible that these various names refer to two different Indians.

valley, formed by the junction of the North fork with the main river, which contained several patches of prairie, notably at sites AE and AI, besides the more extensive ones on the ridges. There were good fishing holes on the North fork where the Indians regularly camped, especially a hole at site AF which is twelve feet deep even during the dry season (pl. 6, fig. 1). Another fishing place was at site AG at the base of a waterfall blocking the advance of salmon.

As a result of these natural advantages, it appears that the vicinity of Blue Lake was a populous center a few years before the arrival of the whites and before the murderous raid of the Chilula previously mentioned. Before the massacre the territory was unquestionably Wiyot, but after that time, and especially after the whites came and did away with tribal feuds, the Indian population became somewhat mixed by intermarriage, there being then a considerable number of Chilula. It is reported that in 1850 there were twenty houses built of slabs and poles within a radius of two miles from the present village of Blue Lake. The writer is not unwilling to believe that there may have been twenty houses standing, but is inclined to think that that number could not have been inhabited in 1850.

The account of the size of these houses as given by one pioneer differs from the usual description. He said that most of the houses were about twenty feet square, and made of redwood planks with the roof close to the ground, the floor being paved with stones. The sweat-houses were covered with earth. None of the other informants estimated Wiyot houses to be over sixteen feet square. The largest house-pit measured by the writer was that of Brokearm on site 6, it being a little less than twenty-one feet in diameter. When we allow for the caving of the soil, the size of the house would be somewhat less. Besides it is not known that this was a primitive Indian house. Of several pits on site 34 the two largest measured only eighteen feet in diameter. Hence we must conclude either that the houses at Blue Lake were somewhat larger than the average Wiyot house, or else that the informant, being more familiar with the houses on Redwood creek and Trinity and Klamath rivers, may have overestimated the size of the houses here. Goddard, who had opportunity for measuring Hupa houses, states that they were about twenty feet square.⁵¹ Not only was the Wiyot house smaller than that of the Hupa, but it was different in other respects, none of them having the square pit entered with a ladder, as described by Goddard.

⁵¹ P. E. Goddard, present series, I, 13, 1903.

Site Y.—After the time of the massacre by the Chilula, a new village was established at Blue Lake. Its Athapasean name was itsin-ohogindis-ten, "go down-?-place," because there was a trail from Liscom hill down to the village. Aleck Sam mentioned four houses with the following occupants: 1, Kneeland Jack's father, who was a mauweema, Kneeland Jack being a half brother to our informant, Jim Broek; 2, Blue Lake Bob's father, who was born on site 7 and married a Chilula; 3, Short Bill's⁵² father, who originally came from site 34; 4, an old fellow who spoke the Athapasean language.

Site AD.—John Stevens said that there was formerly a sweat-house here, a house or two of planks, and three or four bark houses. The people would camp in various places in summer, but in winter, when they had nowhere else to go, would come home to this place. It was given the name mis-kenē'hu-ten, "bluff-?-place," because it was situated in front of a bluff where there are sometimes landslides.

In the villages about Blue Lake, the Wiyot had both plank houses and bark houses. Down river there were mostly plank houses with very few of bark, while up river it was the reverse.

Sites on Mad River Slough

Site 33.—This village was referred to as "a regular rancharia" when the whites first came, a statement which is confirmed by the numbers of skeletons that have been found here with white man's articles buried with them. The village was situated on a sand-dune point reaching down through the marsh to the slough. The site is now occupied by farm buildings, but though it has been much disturbed, it still shows a deposit of shell, mostly the soft-shell mussel, twelve inches thick in places.

Site 34.—Sand-dunes covered with beach pine and huckleberry bushes here reach inland to the slough, where there is a bank twenty or thirty feet high. There is a deposit of shell, several inches in depth, mostly soft-shell mussel and soft-shell clam, with a few shells of other species, extending several hundred feet along the top of the ridge close to the slough. At one spot numerous pelican bones were found. There are two deep house-pits measuring eighteen feet in diameter, and six smaller and less definite depressions.

⁵² Aleck Sam said that the wife, or possibly the mother (the writer failed to understand which) of Short Bill was a Chilula. Whether or not the two Indians (Short Bill and Skoyer Bill) are the same, Mr. Lindsey said that Skoyer Bill had a Chilula wife.

There is a double row of graves near by with headposts varying in size from $1\frac{1}{2}$ to 2 inches thick, 4 to 16 inches wide, and from 1 to $3\frac{1}{2}$ feet high. The position of seven graves can be determined at the present time, and Mr. C. S. Ellis, whose father purchased the place about 1890, says that there might have been twenty graves at that time. They were then visited annually in September, during the huckleberry season, by parties of mourners who came from Mad river in canoes. Aleck Sam said that Short Bill's father, living at least part of the time at site Y, "belonged to" this place. It has now been about twenty years since the mourners have come. Another informant stated that Captain Jim, the mauweema of the northern part of Humboldt bay, died at this village but was buried on the North Spit opposite Eureka.

Amongst other badly decayed lumber scattered over the graves are to be seen fragments of a canoe. Mr. Ellis says that formerly there were several but slightly broken canoes on the graves. It seems that it was formerly a common practice to leave broken canoes on graves, since they can be seen at the present time not only at this place but also at graves on site A. Mr. Ellis has in his possession, obtained from this site, over thirty arrow points (text fig. 13), several abalone pendants and seventy large spherical glass beads, each $\frac{13}{16}$ of an inch in diameter.

Thinking that these graves might be those of victims of the Gunther island massacre, the writer made inquiry of Dandy Bill, who attributed them to persons who died naturally. He seemed quite positive that these graves were not the result of the massacre, although one or two of those buried here might have been killed by whites at other times, as was an altogether common occurrence in pioneer days.

Sites Near Eureka

Site 67.—This was one of the most important villages on Humboldt bay and was situated on an immense shellmound at the northeast extremity of Gunther island. When Robert Gunther obtained possession in 1860, there was a pine tree two feet in diameter on the center of the mound; all the remainder was covered with bushes except that on the eastern part of the mound a small cleared space was occupied by an Indian village (see plan of the mound, plate 11).

Tom Brown says there were nine houses with the following occupants: 1, mother of Tom Brown; 2, San Francisco John and Mary,

aunt of Tom Brown; 3, Tom, brother-in-law of Tom Brown; 4, another Tom; 5, Jack; 6, Judas; 7, Captain Jim, father of Jerry; 8, uncle of Jerry; 9, the sweat-house.

Robert Gunther described the type of house found here and drew some plans, which are reproduced, with but slight changes, in text figure 1. The usual size was sixteen feet square, a very small house being twelve feet. The sides of the house were of redwood planks four or five feet wide, placed on edge, and reaching to the eaves. Holes were burnt and the planks tied together with withes. Under the roof, reaching across the open space, were three or four poles or beams.

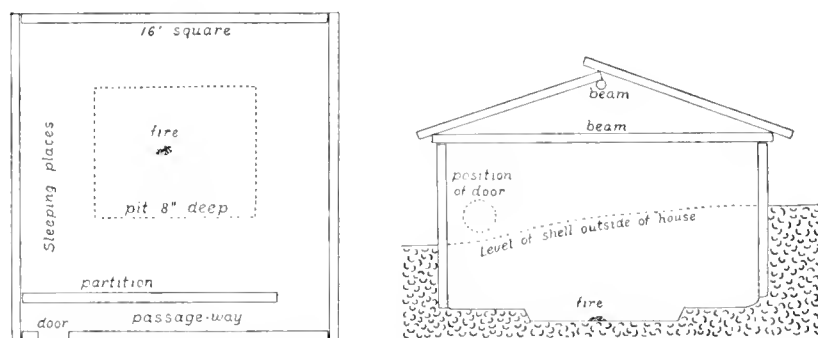


Fig. 1. Ground-plan and vertical cross section of a Wiyot house.

The door was a round hole, eighteen inches in diameter, in one corner of the house. Twenty inches back from the door there was a partition extending nearly the entire width of the house. To enter one had first to stick an arm and shoulder into the door, then, on entering, make a sharp turn to the right and go down the passage way to the right side of the house, where there was a break in the partition. In the center of the house there was a pit six or eight inches deep, which contained the fire place. There was no provision for the escape of smoke, which filled the house and filtered through the cracks as best it could. The shell refuse was piled about the house until it nearly reached the eaves. Then the planks were pulled up to a higher level.

The sweat-house was half underground, at least sixteen feet square, having a door or scuttle in the roof near the southwest corner, where the roof was four feet above the floor, though in the farther corners the roof was higher above the floor. In taking a sweat-bath the perspiration was scraped from the body with a stick or bone. This house was also used for smoking fish.

As Robert Gunther recollects, there were six houses in all at the time of the massacre on February 26, 1860: one shack in the white man's style, one sweat-house, and three houses of the usual type, besides one that had just been burnt. The latter was situated somewhat apart from the others, being within the limits of what now constitutes the chicken yards, while the others were near where the present cabins are located. He estimated that there may have been a population of fifty or sixty living at the village previous to that time.

Estimates of the population at this village in 1850 have been placed much higher, but after the introduction of certain diseases by the whites, the population decreased somewhat, though tending to remain stationary owing to the number of refugees seeking a home here after being driven from localities on the mainland. This village was important in another respect, it being the seat of an annual dance ceremony held in the latter part of February and lasting for about a week.

Site 68.—This was a village of great importance some years previous to the coming of the whites, perhaps of greater importance than site 67, but by 1850 it had fallen to a secondary place. It was situated on another large shellmound near the center of Gunther island. On the top of the mound there is a level flat which Gunther says was used for dancing. It is stated that in 1850 there were about one-third as many Indians living here as on site 67, and that the last family moved to the latter village in 1857 when Captain Moore took up eighty acres on the island and began to build a house on the central mound.

Site 65.—This village was located at the base of the bluff on the point of land now occupied by the Occidental mill in Eureka. A considerable number of Indians lived here in 1852, there being at least three or four houses, but they were driven out soon afterwards, going probably to Gunther island. Mussel and clam shell can be seen beneath some of the buildings and lumber stacks.

Site 58.—A pioneer stated that a village was located on a shell deposit near the present brickyards⁵³ on Eureka slough. Lucas Prairie was situated up the hill back of the village. It is said that there were eight or ten houses in 1858, though this number may be a little large. At that time Nicodemus, Captain Jim, San Francisco John, and several others were living there. Captain Jim, the mau-

⁵³ The recent village ikatchipi may possibly have been located at site 57 instead of site 58 (see illustration, pl. 7, fig. 1).

weema, had his main home on Gunther island, but he was living at the time in this village drying fish. San Francisco John was so named because he had visited the great metropolis, which in his own estimation set him considerably above his fellows. It is said that he became "sassy" to the whites, for which reason certain lumbermen raided his village, shot and wounded him, and killed Nicodemus. San Francisco John was riddled with half a dozen shots, being wounded in the side and in the hand and having his arm and his jaw broken, but he "doctored up" on Gunther island and lived there until the massacre. The Indian account of this shooting will be given later.

Site 17.—This village was located on the North Spit about a quarter of a mile south of the Fairhaven shipyards. Shell of various species, including soft shell mussel, is scattered here over a considerable area with three main centers of deposit. When L. K. Wood's exploring party came down the coast "riding on the backs of big elks having long tails," they stopped two days near this village. When they found their advance southward blocked by the entrance to the harbor, they turned back and were guided around the north end of the bay by an Indian from this village, who was killed by the whites some years later. Captain Jim, the mauweema, made this village his headquarters a great deal of the time, he and his relatives occupying four or five houses. He was living here in 1873 and for four or five years afterwards, having escaped the Gunther island massacre, although his wife was killed there.

According to A. L. Kroeber,⁵⁴ a dance similar to the Jumping dance of the Yurok and Hupa was held indoors at this place, lasting about five days. At the dance obsidian blades were used, but were hung by strings on the breast instead of being held in the hand as in the White Deerskin dance of the Yurok and Hupa.

Site 73.—This village was located close to the bay shore in Bucksport near the present terminus of the street car line. One white informant reported that there were eight or ten plank houses there in 1851. During recent years, Jerry, the son of Captain Jim, has made his home in Bucksport.

Sites Near the Harbor Entrance

Site 112.—This village was situated on the South Spit near the entrance to the harbor. It was the boyhood home of Dandy Bill, who was the writer's most satisfactory informant and a very lovable char-

⁵⁴ A. L. Kroeber, *Jour. Am. Folk-Lore*, XXI, 38, 1908.

aeter. He was about twelve years old, according to the testimony of Captain H. H. Buhne, when the latter entered the harbor in 1850. Dandy Bill said that most of the shell deposit there has been washed away. He also said that there were many graves, but the writer failed to inquire whether these existed before or after the massacre which occurred here February 26, 1860, on the same night as at Gunther island. In 1860 there were ten houses besides the sweat-house, scattered about over a rather wide area, and containing a population of at least fifty-one before the massacre. Some of the leading men of this village were: Kiwelattah or Old Coonskin,⁵⁵ the mauweema, and uncle of Dandy Bill; Shasepee, brother of Old Coonskin; Coonskin Ned, the son of Old Coonskin; Doctor and Jim, who lived together in the same house; Captain Joe, Sherman George, Peter, and Ben.

Site 77.—This village was located at the mouth of Elk river, which had the same name as the village, ikso'ri. According to the United States Coast and Geodetic Survey chart of 1858 (see pl. 3), the mouth of Elk river was formerly half a mile farther north than at present, with a sandspit between the river and the bay. The village was on this sandspit, which has since been washed away. Old Coonskin,⁵⁵ the mauweema, used to live here part of the time. It appears from the reports of white informants, that there were not more than half a dozen houses, though Dandy Bill said that many people used to live here.

Site 79.—This village was located on Buhnes Point, otherwise known as Humboldt Point, which was the first place on the bay where a town was laid out, under the name of Humboldt City. For this reason the site ceased to be occupied as an Indian village after 1850. White informants speak of numerous graves at this site, and from Dandy Bill it would appear that it was either an important ancient site or a place of traditional or mythological interest. The site has now been washed away. L. K. Wood in his narrative of discovery⁵⁶ mentions stopping there December 27, 1849, in these words:

The next day we followed down the bay, crossing Elk river, to Humboldt Point. Here we were visited by the Chief of the tribe of Indians in the vicinity of the bay, who was an elderly and very dignified and intelligent Indian. He appeared very friendly and seemed disposed to afford us every means of comfort in his power. He supplied us with a quantity of elams, upon which we feasted sumptuously. . . . This old man's name we learn was Ki-we-lat-tah. He is still living on the bay (1856) and has always been known as a quiet and friendly Indian.

⁵⁵ Mentioned below in the description of site 79, also in the quotation from L. K. Wood under the heading, Gold Seekers' Rush in 1850.

⁵⁶ L. K. Wood, *op. cit.*, p. 90.

Sites at the South End of the Bay

Site 86.—This was a permanent village situated close to the bay near Whites slough where a creek came down.

Site 92.—This village was at the upper end of Hookton slough. In addition to being a small, nearly permanent village, it was also a camping place for larger parties. Dandy Bill's father used to live here at times.

Site 102.—The mauweema Kiwelattah, his three brothers, and perhaps several others, built houses here on a point of land which they occupied at irregular intervals when gathering clams on the mud flats, which are here more extensive than elsewhere on the southern half of the bay. For this reason the site assumes a much greater importance archaeologically than the majority of the modern villages. There was a trail connecting this site with Eel river by way of Table Bluff, and although the spot is described as a frequent camping place, it was important enough to possess a sweat-house.

Sites on Eel River

As previously stated under the heading of Fauna, Eel river was formerly one of the best rivers of California for fishing and supported a comparatively numerous population. Dandy Bill said that when he was a boy, anyone camping at night on Table Bluff could see many lights scattered all along the river. Besides the regular permanent villages, there were camping places during the fishing season for people living at a distance. One of these camping places was site AX. This contained seven houses or more, occupied during the fishing season by the father and uncles of Dandy Bill as well as by Captain Joe and others from site 112.

The chief village was site AQ, situated on the south side of the river, near its mouth, surrounded by sloughs. The spot was formerly occupied by a fish cannery, but this has now been washed away. For salmon fishing a village downstream always has the advantage of those upstream, because the fish run up. It was stated that site AQ had very many houses with an extraordinary number of very wealthy men. This village was on friendly terms with the villages near Eureka because Captain Jim, the mauweema, obtained a wife here.

The writer did not get as many facts regarding the other villages on Eel river as would be desirable, but it was stated that sites AV, AW, AZ, and BA had each many houses and many people. Sites AR and AU

were also important. Site BA was mentioned as having an extraordinary number of graves. The Indians of Eel river had their full share of troubles with the whites, which matter will be treated separately below.

MINOR SETTLEMENTS AND CAMP SITES IN 1850

Sites 6, H, R, AE, AI, AG, AH, and AM have already been mentioned.⁵⁷ Other sites deserving of notice are as follows:

Jim Brock said that the Jumping dance used to be held at site E, but as no one else mentioned any dance at that place the writer suspects there has been a confusion with site C.

Site 14, at the entrance to the harbor, was sometimes used as a camping place for clam roasting. Soldiers also detained the Wiyot Indians here for a time after the massacre of February, 1860, before taking them to the reservations. Some died and were buried here at that time, and drifting sands have since exposed skeletons with blue cloth and soldier buttons. At several other places on the North Spit glass beads and other articles derived from white men have been found.

Site 31 had two houses, and is one of several places where Captain Jim lived at times, especially during the September huckleberry season. It would seem that some of the rich men had about as many different summer houses, winter houses, and camps as the very wealthy do among us. They would have one house convenient for berry picking, another where certain roots and herbs were plentiful, a third near extensive clam beds, a fourth at a position favorable for catching salmon, a fifth on the ocean coast for surf-fishing, and so on. Then, as one Indian put it, "in the winter time, when they had nowhere else to go, they went home." Captain Jim had houses at sites 17, 31, 58, and 67, while Dandy Bill speaks of living as a boy at sites 90, 92, 102, 112, 114, and AX.

Site 39 was situated on Daniels slough, which was navigable for canoes at high tide, and was used in traveling between the Mad river bend settlements and the bay. Two paternal uncles of Dandy Bill lived here. Arcata Prairie, which produced an abundance of the species of parsley previously mentioned, was near by.

Site 45 had at least two houses and twenty-five or thirty inhabitants in 1852. It was a small but permanent village at that time, situated near a slough navigable for canoes, and also near the old Indian trail that went around the bay. By 1860 it was deserted and the

⁵⁷ See pages 249, 252, 253, 355, 261, 262, 264.

house planks badly rotted. It was then an open space sixty feet across, covered with shell and surrounded with a tangled thicket of rose bushes, blackberry bushes, and other shrubs.

Site AL was situated near the mouth of Jacoby creek. There were several small plank houses here in 1856, one of which was occupied by Old Harry, who used to come during the salmon fishing season from Gunther island. There was an Indian trail going up to Boynton Prairie and the ridge where acorns were gathered.

Site 78, situated near the schoolhouse on Elk river, is chiefly of interest because of myths connected with the place. It was used as a camping place where salmon, caught in the river, were dried. The party with L. K. Wood camped here one night.

Site 90 was near the place where the Indian trail crossed Salmon creek. Dandy Bill's father was living there in 1849 when Wood's party passed down the coast. He acted as guide from Salmon creek to Eel river, site BB.

Site 91 was a favorite camping place for periods varying from a few nights to six months. Parties camped at different times over rather scattered areas on both sides of the creek, which was here just above the reach of the tide.

Site BB is the place where Wood's party crossed Eel river. It was at the mouth of Strongs creek, but the course of the river has changed greatly at this point since 1849.

Above Fortuna the population thinned out rapidly, until the last camping place at the mouth of Van Duzen river was reached. The first important Athapascan village on Eel river was at Seotia and was called tokōnēwōlōk in Wiyot, but downstream a mile and a half there were a few houses at a place called tokēmuk. Some of the people living at the latter place were Wiyot intermarried with the Athapascans.

On the coast, sites 114, 115, and 117 were used at times by the Wiyot Indians as camping places when they caught surf fish or gathered mussels.

PLACES ABANDONED PREVIOUS TO 1850

Several places were mentioned as being modern village sites but abandoned for one reason or another some time previous to 1850. Usually the cause was some quarrel or tragedy that resulted in the making of many new graves, after which the survivors preferred to live in another locality.

Site Z.—This was the chief village in the vicinity of Blue Lake at the time of the Chilula attack, only a few years previous to the coming of the whites, who report seeing thirty or forty fresh graves as the result of the massacre. Jim Brock said that the place was populous, but he did not know how many people lived there at the time they were driven out, which was just before he was born. When he was a boy there were about a dozen abandoned plank houses still standing, besides a sweathouse. These were burnt at the time of the war, he said, probably meaning the Chilula raid in August, 1862, when Bates Hotel was burned and several whites were killed. The Athapasean name of the place, mis-kritikrit, was said to refer to the steep hillside on one side of the village and a slough or old channel of the river on the other side. Jim Brock had heard that, long before he was born, the river made a bend to the east and ran through the channel near the village.

Site AE.—This former village was situated on what appears from a little distance to be a mound, but as there is no deposit of black dirt or any other archaeological evidence, it is probably only a river bar deposited by the North fork. John Stevens had heard from his father that it used to be a permanent village, but in more recent times it was only a camping place with one or two bark houses.

Site 22, located in the mill yard at Samoa, according to tradition once had a large population.

Site 23, located one mile north of Samoa, is one of the largest shellmounds of the region and was said to be a regular rancheria one hundred years ago. In more recent times Indians living on Mad river when visiting Gunther island used to walk down the North Spit as far as this site and then shout or make a smoke to attract attention, when the people on the island would cross over in a canoe to get them as soon as the tide was favorable. Robert Gunther says that dances used to be held at this place.

Site 69.—This was formerly a very important village near the railroad station in Eureka. Dandy Bill said his father and five paternal uncles were born here. There was a fight with a neighboring village, so all left and moved towards the entrance of the harbor.

Site 81, situated on a point of land, now washed away, half a mile north of Bucksport, is a place where Dandy Bill's grandfather used to live part of the time. The site was abandoned before Dandy Bill can remember.

Site 110.—This was a place on the South Spit where someone had begun to hollow out a canoe from a log. The name of the place has an allusion to this abandoned log.

ARCHAEOLOGICAL SITES

The writer first attempted to locate the various ancient deposits by walking along the shores of the bay, but met with much difficulty from the density of brier bushes and underbrush of all kinds, as well as the number of small sloughs reaching up between points of land. Later he located many deposits by using a boat, and in so doing was impressed with the fact that the prehistoric inhabitants must have been users of canoes. Even were there no large deposits on islands this conclusion must be reached because of the close relationship between most of the deposits and small sloughs just large enough to navigate at high tide. Many of the deposits were situated at the tip end of ridges that reached out into the marshes and approached close to these small sloughs. This relationship of villages to sloughs is shown in one of the maps (pl. 2). A somewhat greater number of deposits would have been located, if all of the shores of the bay had been visited by boat instead of by walking. There were only about half a dozen deposits situated on marshes, these being chiefly on the islands near Eureka. A greater number were on ridges and bluffs at elevations ranging from twenty feet to over one hundred feet.

The six largest shellmounds that are in evidence at the present time are all situated within a mile and a half of Eureka. These are, in the order of their size, sites 23, 67, 68, 61, 58, and 69. The environment of these mounds will be discussed below under the description of site 67, where an excavation was made. This mound is irregularly pear shaped, 600 feet long by about 400 feet wide, and 14 feet high. Site 68 is a mound of about the same size, while site 23 has a deposit covering a larger area even though it may not be greater in depth.

On the northeast shore of the bay at site 48 there is a small crescent shaped shellmound not much over one hundred feet in length and several feet in depth, covering the tip of Brainards Point. On this mound there is a fir tree twenty-seven inches in diameter, also a spruce tree and a badly decayed stump each forty-five inches in diameter.

A mound of first-class importance could be expected somewhere near the mouth of Jacoby creek, since there seems to be here the right combination of wide tide flats and sloughs navigable for canoes,

as well as a large creek. However, there are indications that Jacoby creek during times of freshets has deposited much sediment over this area, perhaps covering some of such shell deposits as exist. The writer has learned since completing his field work that there are some shell deposits in this section, near the sloughs, which he overlooked.

The North Spit, which is one-half to three-quarters of a mile wide, with elevations reaching eighty-five feet, is composed entirely of sand east up by the combined action of wind and wave. Plate 8, figure 1, is a view of the sand-dunes encroaching upon the timber belt to the north of site 37. Here there are fresh dunes nearly sixty feet in height, half burying and killing spruce trees which measure two and three feet in diameter where they reach above the sands. At the present time, only half of the width of the North Spit is covered with drifting sands; and the bay shore, being protected from cold ocean winds by the high sand ridge and a belt of beach pine, is a desirable place for habitation. Doubtless many villages have been established from time to time in the past along the shore between Samoa and Mad River slough only to be later rendered uninhabitable by encroaching sands.⁵⁸ Even a moderate amount of drifting sand would be sufficiently annoying to cause a village to be abandoned. A superficial examination of several sites indicated one or more periods of occupancy followed by periods of abandonment. At no place was a stratum of shell found to be over two feet in thickness, and more often the deposits were of one foot or less alternating with layers of sand. Doubtless shell deposits of the more distant past are deeply buried under large sand-dunes.

A number of sites had the outward form of mounds, one of which is illustrated in plate 8, figure 2. Other sites were strung along the tops of sand-dune ridges where they came close to the bay. At site 32 a ridge with an elevation of thirty or forty feet extends alongside Mad River slough. The top for a width of twenty-five to one hundred feet, and a length of eight hundred to a thousand feet is covered with shell not to exceed fifteen inches in depth.

Mussel shell of the small thin variety is conspicuous on nearly all of the sites along the North Spit, while on Gunther island it would require a diligent sifting of all the fragments in a whole trench in order to get a handful.

⁵⁸ See footnote 152 in regard to site 31.

Along the east shore of the bay to the south of Eureka anything worthy of the name of a mound seems to be lacking, though there are reports that a number of sites have been washed away, including sites 71, 77, 79, and 85, as well as site 112 at the harbor entrance. There are quite a number of sites on the top of the bluffs and on the hillsides. The South Spit is low and narrow, has no timber or shelter against the wind, and is almost overwashed with waves at times of storm occurring at seasons of extremely high tides. Hence it doubtless never was very desirable except as a camping place.

At the south end of the bay there are two places where shell deposits reach a depth of several feet, sites 98 and 102, both situated near sloughs. Besides the main deposit at site 102, there is an arm reaching up the hill to an elevation of forty or fifty feet, and spreading out as a thin deposit over a wide area from which arrow points have been plowed out.

At site 103 the nearly perpendicular bluff is caving in at the present time so as to leave exposed to view a deposit of black dirt and shell about one foot in depth along the top of the bluff for a distance of nearly a thousand feet. Sites 99, 101, 105, and 106 are also deposits of black dirt on the bluff. Hence, it would appear that the Indians here preferred living at a considerable elevation where they could have a timber shelter, rather than near the water's edge where they would be exposed to the prevailing northwest winds. Shell deposits may be hidden beneath the tangled brush along the sides of the bluff; or the shells might have been opened where they were gathered and hence never have accumulated in large quantity. The people would be likely to do this rather than go to the trouble of carrying the heavy loads up to their elevated homes.

No shell deposits of any consequence were found on either Mad or Eel rivers. On the rocky coast south of Eel river shell was reported at sites 114, 115, and 117. A deposit of shell was also reported at site 116 near Guthrie creek, but two and one-half miles inland from the coast. It is said that when the whites first settled the district, there was here an open space of several acres within the forest.

Site 5, near the mouth of Mad river, is deserving of some notice because of Indian myths concerning the place. To the north of Mad river there is a tableland of an elevation of forty or more feet with a steep bluff on the ocean side. On the top of the tableland, at the edge of the bluff, a sand hill stretches for five or six hundred feet. This is perhaps a natural deposit except for the upper foot or two, which con-

sists of blackened sand filled with gopher holes. The surface is covered with an unusual number of burnt stones the size of one's fist and smaller. There are a few chert fragments, the refuse from implement making, but no signs of any shell fragments.

Sites for Surf-fishing

Powers says of the Wiyot that 'their manner of smelt-fishing in the surf, whereby their eyes were often filled with brine, and the high, sand-driving winds which prevail at certain seasons about the estuary of Eel river, occasioned much ophthalmia among them, and eventually a great deal of blindness.'⁵⁹ He also more fully describes fishing in the ocean surf at the mouth of the Klamath river in these words:⁶⁰

Along the coast they engage largely in smelt-fishing. The fisherman takes two long slender poles which he frames together with a cross-piece in the shape of the letter A, and across these he stretches a net with small meshes, bagging down considerably. This net he connects by a throat, with a long bag-net floating in the water behind him, and then, provided with a strong staff, he wades out up to his middle. When an unusually heavy billow surges in he plants his staff firmly on the bottom, ducks his head forward, and allows it to boom over him. After each wave he dips with his net and hoists it up, whereupon the smelt slide down to the point and through the throat into the bag-net. When the latter contains a bushel or so he wades ashore and empties it into his squaw's basket. About sunset appears to be the most favorable time for smelt-fishing, and at this time the great bar across the mouth of the Klamath presents a lively and interesting spectacle. Sometimes many scores of swarthy heads may be seen bobbing amid the surf like so many sea-lions.

It appears that smelt though fond of surf dislike beaches because the waves stir up the sand too much. Most of the Wiyot coast is sandy, but near the mouths of Eel and Mad rivers gravel has been washed down during the centuries by the rivers and distributed along the shore by the action of tide and storm. Back from the water's edge there is a ridge of sand ten feet or more in elevation, covered with logs and driftwood thrown up high and dry by storms at times of extremely high tide.

Back from this ridge to the south of Mad river all is drifting sand, which one-third of a mile from the ocean reach elevations of from sixty to eighty-five feet. To the rear of the ridge littered with driftwood, there is perhaps a greater aggregate of archaeological remains than anywhere else in the region, not excepting even the

⁵⁹ Stephen Powers, *op. cit.*, p. 103.

⁶⁰ *Ibid.*, p. 50.

larger shellmounds, for if the wind would uniformly blow away the sand we possibly might find a continuous strip of archaeological remains several hundred feet wide and over three miles long southward from Mad river mouth.

These remains are of two classes, as illustrated on plate 10, and must be of considerable age, to judge by their extent as well as the Indian myths concerning them. The first class consists of circular patches of ground six or eight feet in diameter covered with stones the size of one's fist and smaller. In some cases these stones lie only a few inches apart and nearly cover the ground. Many of them show signs of fire. The illustration is hardly typical, because in this case the stones are few in number and scattered over a wider area than usual. A partial count made fifteen such circles, and it is estimated that there are twenty or thirty in all. There were also several heaps two feet in diameter, composed of burnt stones.

The second class of remains in this shore district south of Mad river is made up of fifty or more patches of shell, chert fragments, and small stones or pebbles varying in size from hen's eggs to lentils. Why the small pebbles or coarse gravel should have been brought to the camp sites is not known, but that they were brought there by man is unquestionable, since they are not found apart from other evidences of human occupation. On the map these remains have been divided somewhat arbitrarily into four groups, sites 10, 11, 12, and 13, each being separated from the next by drifts of sand. The Wiyot also divide the remains into two or three groups, with names for each. The northern group, apparently equivalent to the group numbered as site 10, has two names, *tokelibōwok* and *sho*. The name, *wadiswa*, was given to remains situated south of site 10.

Small fragments of chert of various colors, blue, green, yellow, red, chocolate, and black, the refuse from implement making, are widely distributed and could be gathered by the bushel. Among them were found about forty more or less fragmentary chipped implements, including spear and arrow points, scrapers, knives, and drills. Eight of the better specimens are illustrated on plate 15. The writer knows nothing about the geology of the Humboldt bay region, but because about half of the gravel and small unbroken pebbles at these surf-fishing camps are composed of chert, there is every reason to believe that a formation of chert exists somewhere in the region, and the location would seem to be the area drained by Luffenholtz and Norton creeks, since the Wiyot names of these refer to flint. It is not unlikely

that this chert formation is of the same age and character as that in the Franciscan series on San Francisco peninsula.⁶¹

Only one specimen of obsidian was found in this district, a red and black knife about three inches long (pl. 15, fig. 2). This specimen must have been brought from a distance, since not the slightest particle of obsidian refuse could be found anywhere. Obsidian probably does not occur within the limits of the Wiyot area, and what the nearest source would be the writer is not prepared to say, but it occurs in abundance as boulders on the ridges at the head of Eel river.⁶²

A hard sandstone similar in texture to the rock from which many implements are made, and a very small amount of quartz, are the other rock materials composing the gravel and pebbles. Some of the patches covered with gravel, pebbles, and chert fragments are almost devoid of shell.

In each of the patches of shell there seems to be a tendency for one species of mollusk to predominate. In general, the most common species are those of the larger clams, *Paphia*, *Schizothaerus*, and *Saxidomus*. Next in order of abundance are the soft shell clam, *Macoma nasuta*, the razor-shell, *Siliqua patula*, and two species of mussel, *Mytilus californianus* and *M. edulis*. There were but few cockle shells, *Cardium*. As a rule the shell is very much scattered, seldom being in beds. One bed of mussel two and a half feet in diameter and six inches thick was found underlaid with charcoal. This would indicate the amount cooked at one time by baking in the shell, but for some reason the shell was left undisturbed after being baked.

Animal bones were sufficiently few to allow of all (with the exception of a few whale bones) being taken away in a sack along with the stone artifacts. They included, in order of abundance, elk, seal, sea-lion, whale, and sea-otter. Only three small fragments of human bones could be found. This fact might lead to the conclusion that there were here no permanent villages but only temporary places of abode. However, the dead might have been cremated, and the large number of burnt stones indicates that a great deal of cooking has been done here.

Nearly fifty stone sinkers were found, and a dozen stones that had been used probably in breaking up chert for manufacture into imple-

⁶¹ The chert formation, which appears to be of Jurassic age, and which is formed from an accumulation of the silicious skeletons or tests of microscopic, marine animals known as radiolaria, is found on San Francisco peninsula and northward. See Univ. Calif. Publ., Bull. Dept. Geol.; and especially A. C. Lawson, 15th Ann. Rep. U. S. Geol. Surv., 1893-94.

⁶² George Gibbs, *op. cit.*, pp. 114, 116.

ments (pl. 17, fig. 6). The great number of sinkers and the hammer stones, together with the abundance of chert refuse, would indicate that the campers engaged in fishing when the fishing was good and between times worked at flaking implements.

Wiyot informants did not mention ever having camped on the sites described above, but said that they were formerly occupied by a now extinct race. They did admit that three spots between Eel river and Cape Fortumas were used as camp sites by them while surf-fishing and gathering mollusks. The writer did not visit this stretch of coast, but was told that at site 114 the wind exposes shell and arrow points.

PLACES OF MYTHOLOGICAL INTEREST

Sites 10, 11, 12, and 13.—Chief among the places of mythological interest are the surf-fishing camps on the ocean shore south of Mad river. There are several names for these sites. Dandy Bill gave the name, tokelibōwok, for the northern site, while he said there was another name that he could not remember for the prehistoric remains opposite site 36. He was not familiar with the two names given by Aleck Sam, sho, for the northern, and wadiswa, for the southern part of the stretch of remains.

On these sites the "Old Nation" known as the wigidikōwok⁶³ used to live. The informants stated that they did not know much about these ancient people because their fathers never told them much, but that a long time ago there used to be a great many of these beings and that they were about as much like animals as they were like men. Perhaps they were the deer people, or the elk people, or possibly the duck people. The informants did not know. By and by another people came and constantly tricked the first people. One way in which they annoyed them was by dropping excrement down the smoke holes into

⁶³ The mythological material in the following pages was obtained only incidentally, and is given with the hope that it may serve as a clue to future investigation. Sketches of Wiyot mythology have also been made by A. L. Kroeber under the titles: Wishok Myths, *Jour. Am. Folk-Lore*, xviii, 85, 1905; Wiyot Folk-lore, *ibid.*, xxi, 35, 1908; Religion of the Indians of California, present series, iv, 348, 1907. In the last paper cited (p. 342), Kroeber says: "The Northwestern mythologies are characterized primarily by a very deeply impressed conception of a previous, now vanished, race, who by first living the life and performing the actions of mankind were the producers of all human institutions and arts as well as of some of the phenomena of nature. Second in importance in the Northwest are myths dealing with culture-heroes more or less of the trickster type." In the second citation (p. 38), Kroeber gives the name, wigidikōwok, in a slightly varying form. He says: "Powerful supernatural beings are called wakirash, or yagabiehirakw. Among such are the inhabitants of lakes. When one of these takes pity on a man, he becomes physically strong and fierce."

their dwellings. These droppings can be seen now as the circles of stones that have been described (pl. 10, fig. 2). So the first people became angry and left. Some say that they went far to the south, and that perhaps their descendants are now the Mexicans.

Site 8.—These same ancient people used to live also on site 8 near a waterfall on Mill creek. According to a manuscript of A. L. Kroeber, the Yurok believed that the trail to the world of the dead began at a place near here.⁶⁴

Site 5.—This site, located at the top of the bluff near the mouth of Mad river, is associated with the Old Nation by both the Wiyot and the Athapascans living on Mad river. Tom Brown, who is getting old and in consequence is somewhat incoherent in his remarks, said that his father used to make a Jumping dance for ten days every summer at the recent village at site 4, and the same kind of a dance every winter on top of the bluff where the "first people" used to live. He said in connection with this dance that if one dreamed of snakes he would have no luck in fishing for four or five days. He also made several statements regarding a flood that was understood to apply to the people of this place. There was a flood that three times drowned all the people on earth, but they said: "Next time we will grow up." One man always came back again and was the beginning of another people, which in its turn was drowned.

Table Bluff.—Dandy Bill associated Table Bluff with the flood.⁶⁵ He said that "many thousands of years ago" there was a flood all around Table Bluff. One man prophesied that a flood would cover all the earth and all the hills; but some people would not believe him. A woman made a water-tight basket large enough to hold a boy and his sister. She gave the boy a stone knife about four inches long, put a tight cover on the basket, and smeared it with pitch. Roll! roll! roll! went the basket in the waves. By and by the boy could not feel it rolling any more. He cut a hole in the basket and found that there was no more water, that it had all gone down. Then he saw raccoon tracks and frog tracks. He built a brush hut, married his sister, and the world became peopled again.

Site 78.—Another place where the Old Nation used to live was at site 78, near Elk river. The first people that ever lived made a name for this place, calling it chwānoehkok. That was the "old fashioned

⁶⁴ See footnote 170.

⁶⁵ A. L. Kroeber, *Jour. Am. Folk-Lore*, xviii, 96, says that a high mountain between Mad river and Redwood creek was another elevation of this region that reached above the waters of the flood. See page 296.

name" which the fathers passed along to their sons, so that the place has always been called by that name.

Site 68.—Dandy Bill said that there were many stories about the large shellmound on the center of Gunther island. His accounts are about as follows: For thousands and thousands of years this place has been occupied by a very large village belonging to one "nation" after another. Two hundred years ago⁶⁶ there was a medicine-man living here who was the first man of one of the nations. One day just after breakfast he saw five pelicans flying overhead. He made a "roll" (charm) and said: "I wish you would fall." Four of the pelicans fell but the fifth flew away. After getting the pelicans the medicine-man had great success in fishing and became a powerful man, inducing many people to live at his village.

At one time fish were very scarce and could not be caught. Then this medicine-man took an old pipe about four inches in diameter and filled it with native tobacco. He smoked the pipe and "wished" for fish and all kinds of food. He took two men in a canoe and paddled all about the bay. He went toward Arcata wishing for fish, and did not come home until daylight. Then he lay down in the sweat-house and said to the two men with him: "You can catch fish now. I felt it some little time ago." The two men came back with a boat-load of fish.

Site L, gērāri-dērsiskadawin.—At this place, located near a county bridge on Mad river, there is a big rock in the river bed, with peculiar natural markings across its top. There was a young unmarried woman, *gērāri*, who came from a far away country, and who had a baby by a man living at this place. The child matured at a phenomenal rate. Then the young woman was homesick. The man tried to persuade her to stay, but she was obstinate; so he pressed her down into the river and made her stay there.

The Athapasean account is very similar, adding that the man was the very first of the Indian race, and that when he found that he could not keep the woman he killed her, making several slashes with his knife across her body, which are now the marks on the rock.

Other places.—On Eel river near site AZ, according to an old tale, there used to be a little animal, something like a coyote, that came to the top of the water and barked. The details of this story were not obtained.

⁶⁶ The informant, although thoroughly reliable in other respects, was very inconsistent in his statements regarding the duration of time, two or three hundreds of years apparently often meaning as much to him as the same number of thousands or hundreds of thousands.

There were several other sites concerning which informants said there were stories of the people who used to live on them. Two informants hinted that there were tales about site 22 at Samoa. Sites 79, 108, and 23 were occupied by villages "a long time ago," that is, "one hundred," or "two hundred," or "three hundred years ago" in the Indian's vague, indefinite way of reckoning the passage of time. Site 23 besides being perhaps the largest shellmound of the region, and hence undoubtedly ancient, was a place where a dance was held. People also lived on sites 2 and 3 "a long time ago." As time was limited, the writer did not press his inquiry, and so is unable to say whether these stories belong to the realm of mythology or to that of historical tradition.

Athapasean Myths.—The Athapaseans say that before the Indians existed there was another race, the first people, called *djiholdjwhe*.⁶⁷ These people were born at the mouth of Mad river at site 5. There were also many of them up the river at site x, where the county road, following an old Indian trail, goes around a rock, *tsa*, the name of the place being *tsa-minilgetindik-tin*. Farther up the river at site p, the first man met a woman and tore her dress.

LISTS OF GEOGRAPHICAL NAMES

The writer has had no training in phonetics and in consequence can lay no claim to great accuracy in the orthography of the following Indian names of places. All the Wiyot names were obtained from Tom Brown and Aleck Sam, who live at the mouth of Mad river, and from Dandy Bill, who lives at the south end of the bay. The Athapasean names were obtained from Jim Broek, born at site x, and John Stevens, born near Maple creek. Both men have Whilkut wives and their dialect is probably Whilkut, although they have had considerable association with the Chilula. About three-quarters of the words, or those obtained from Dandy Bill and the two Athapasean informants, were recorded on a phonograph, so that the writer's memory might be refreshed and inconsistencies eliminated. Unfortunately the record obtained from Jim Broek was broken in transit. Owing to this fact as well as to the extreme difficulties of Athapasean to a beginner, the writer is much less satisfied with his orthography of these names than with his Wiyot names.

⁶⁷ The writer is not certain whether the word is in the singular or the plural, whether it is the name of a race or the name of the first man of that race.

In the various Wiyot names all the consonant sounds found in English were encountered, except *l*, *v*, and *z*. In addition to these there were several other sounds. One of these is similar to the Welsh *ll*, and has been written *L* in conformity with the usage of American anthropologists. A catch has been written *ʔ*. *Ch* is as in church; *x*, met with only three times, has a sound similar to German *ch* in *buch*; *g* denotes the sound as in *go*; *j* has the English sound, written *dj*, never the French *zj* sound; *t* has a sound similar to *th* in *thin*. Where a syllable is strongly accented it has been marked thus: *ˈ*. The vowel sounds are as follows:

<i>ā</i> as in father	<i>ō</i> as in note
<i>a</i> as in Cuba	<i>o</i> as in hot
<i>a</i> as in hat	<i>ū</i> as oo in boot
<i>ē</i> as in they	<i>u</i> as in put
<i>e</i> as in met	<i>ai</i> as in aisle
<i>ē</i> as in her	<i>au</i> as ou in loud
<i>ī</i> as in machine	<i>oi</i> as in oil
<i>i</i> as in pin	

In some cases an informant gave a second name for a locality. In other cases different informants either pronounced differently or used another name. In the latter case it is possible that a different locality in the near vicinity was intended. When inquiry was made as to the meaning of a name, it was frequently stated that it was merely the name and without any meaning, though there is little doubt that a greater expenditure of time might have found meanings for most of the names. Sometimes either a very free translation was given or something descriptive of the surroundings. Literal meanings, whether obtained from informants or from existing vocabularies, are presented with hyphens connecting the stems, and with corresponding hyphens connecting the English translations of these stems. A question mark in connection with the translation of a stem indicates that the exact correctness of the translation is doubtful, while the same sign separated from the remainder of the translation by a hyphen shows that no meaning is known for the Indian stem which occupies a corresponding position.

The same system of orthography is used for the Athapasean names as for the Wiyot names. One sound noted neither in Wiyot names nor known in English is rendered by the letter *w* in conformity with the usage of Dr. P. E. Goddard.

Wiyot Geographical Names

The following are the names of archaeological sites which were used in 1850 by the Wiyot as village or camp sites:

- Site 1, tā-pel-o, " ?-flint "
- Site 2, plet-kosom-ili, " rock-small-? "
- Site 4, kōlikē'me⁶⁸
- Site 6, ehnmī', djōme
- Site 7, gwisok⁶⁹
- Site 9, betser⁷⁰
- Site 14, hotwaiyorwok
- Site 17, iugutkuk
- Site 19, tsērkc̄tsok⁷¹
- Site 26, lekaliwīL, sgekeliwisg
- Site 31, tokalewīk, tokelibesL, tokalibwīL
- Site 32, tāgoriok
- Site 33, tāpō't, howetotōl
- Site 34, mōle'l
- Site 34, (graves), witāchwhāyuwin
- Site 36, bikatslikātwayāwik, bēgutsglits
- Site 39, mīpa't
- Site 48, plets-wok, " rock-at "
- Site 58, ikatchipi
- Site 65, tōlōiapLīk
- Site 67, tōlōwot
- Site 68, etpidol wotpērōL
- Site 73, kutsērwalīk⁷²
- Site 77, ikso'ri
- Site 78, chwānochkok
- Site 79, djorōkēgochkok
- Site 80, mōroLrok
- Site 83, dolawotkuk
- Site 84, topōrok
- Site 86, potatoli
- Site 88, ātwhutkārūwiltaliwēL
- Site 90, toktowoka
- Site 91, kosubopla
- Site 92, sowokwokērtsokowēL
- Site 93, yowo
- Site 98, tsok
- Site 100, yawonawoch
- Site 102, tolēL
- Site 104, twetkoka, twetkok'kēr

⁶⁸ Meaning said to be "across the river."

⁶⁹ The ending *-ok* is met with over twenty times; cf. Wiyot locative suffix *-akw*, on, in, at (present series, IX, 395).

⁷⁰ Cf. *bātwar*, freshet; *gawu-betser*, it is becoming dry (present series, IX, 409, 398).

⁷¹ Cf. *tsar*, small species of mussel.

⁷² Cf. *guts*, good.

- Site 109, *lokelēbū*⁷³
 Site 112, *bētmēt*
 Site 114, *tokērtāyērwok*
 Site 115, *lolito'dek*, *loliso'tak*
 Site 117, *dat-ōwok*, "up-at"

The following archaeological sites are not known to have been used by the Wiyot in modern times as dwelling places. In addition to these, there were nearly fifty other sites, for which no names were obtained.

- Site 3, *doLokoli*
 Site 5, *kliwatkut*⁷⁴
 Site 8, *dje'gedjoho*
 Site 10, *tokelibōwok*, *sho*
 Site 11, *wadiswa*
 Site 22, *djō'mak*
 Site 23, *digawethatkiL*, *tekewethatki*
 Site 37, *klauwēgidil*, *drauarērkwēratchkēr*
 Site 38, *shotoshērōkotkērel*, *miset'*
 Site 69, *djērōchichichiwiL*
 Site 70, *toLokoliL*, *toklokolil*⁷⁵
 Site 71, *wots-atklik*⁷⁶
 Site 82, *toLokobidjwotno*, *tokōbidjwotno*
 Site 85, *ērotpil*
 Site 87, *totērnērklomuk*⁷⁷
 Site 108, *likagērolik*⁷⁸
 Site 110, *wērkatkōlūitōli*, *wērkatkōlowotōleL*⁷⁹
 Site 113, *welapL*

The village and camp sites in the following list were located by the help of Wiyot informants. They were either not visited by the writer or if visited were found to contain no noticeable archaeological remains.

- Site A, *hatpile'kā*
 Site B, *krochgro'yēkruk*, *tāsiswa*⁸⁰
 Site C, *tisopiligeli*
 Site E, *plet-ēr-sowet*, "rock-?-white"
 Site F, *klichimāt*

⁷³ Name refers to the trail crossing the peninsula from the bay to the ocean beach. Cf. the names for sites 10, 26, and 31.

⁷⁴ Name said to refer to a rise of ground.

⁷⁵ Cf. *tolix*, slough; *laliL*, creek.

⁷⁶ Cf. *wāts*, diminutive.

⁷⁷ Name said to refer to an extra large spring.

⁷⁸ Name said to refer to a marshy point. Cf. *likogērlēli*, point or cape.

⁷⁹ Name said to refer to a log partly made into a canoe, then abandoned. Cf. *ikatūti*, house boards or lumber; *holōwi*, canoe; and *dale*, stand. *Holōwi* is itself a compound from *hō'l*, water, and *ōwi*, go.

⁸⁰ *Siswa*, black, probably referring to an edible plant growing there. See under Ethnobotany, also footnote 98.

Site H, tokoktāwelēr
 Site I, klichibot
 Site J, tokelērboku'⁸¹
 Site L, gērāri-dēsiskāwin, gērāri-dēsiskadawin⁸²
 Site O, tāriwēriwiyūgun⁸³
 Site P, kotsil-howi-loli, "crow-come-creek"
 Site R, topōdērōs, tāpōtērōs⁸⁴
 Site AL, kōkte'
 Site AM, gōmčodo'dog
 Site AN, kwetoLs
 Site AO, totokuk
 Site AP, wotsəlīk
 Site AQ, tolotpīlīk⁸⁵
 Site AR, tekwoḡok
 Site AS, itegrok'whule⁸⁶
 Site AT, mīplok
 Site AU, hochwochkor
 Site AV, tokwhērok
 Site AW, howotkīL
 Site AX, wosala
 Site AY, swēanawochkro
 Site AZ, hokōnwoyok
 Site BA, kwīgōrgoyok
 Site BB, tswokērok
 Site BC, tsolskoge
 Site BD, kīgērgōdoliL, kīgērgōdolti
 Site BE, wotwetwōk
 Site below Scotia, tokēmuk
 Site at Scotia, tokēnēwoLok

The following list includes the Wiyot names of rivers and creeks arranged in their order from north to south:

Luffenholtz creek, tā-pel-ō, "ʔ-āint"
 Little river, itelgāro'⁸⁷
 Strawberry creek, kwespērkogoli
 Creek at site 3, lolir⁸⁸
 Mad river, bātwtō⁸⁹
 Mouth of Mill creek, tūneskut
 Mill Creek falls, tāLe', tōLi

⁸¹ Name said to refer to spearing salmon.

⁸² *Gerāri*, young unmarried woman.

⁸³ Name said to refer to Warren creek cañon being like a split crotch.

⁸⁴ *Topōdērōs*, an onion-like food plant. See under Ethnobotany.

⁸⁵ Name said to refer to a slough around it.

⁸⁶ Name said to refer to a leaning spruce; cf. *tok*, spruce.

⁸⁷ Name said to refer to a kind of footprint in the flat rock at the crossing.

⁸⁸ The word for slough, though the application here is not known.

⁸⁹ Stephen Powers, *op. cit.*, p. 96, used the term Patawāt to designate the inhabitants of lower Mad river.

Vance creek, kotsil-howi-loli, "crow-come-creek"

Lindsey creek mouth, topodēros-dotigērdol⁹⁰

Lindsey creek, tāpōtērōs

Hall creek, djonokut-otigērdol

Norton creek, pel-taliwēL, "flint-?"

North fork of Mad river, rō'lit

Humboldt bay, wikē⁹¹

Jacoby creek, kōktē'

Freshwater creek, gōmēododog

Clark slough, toLokolil, toklokolil⁹²

Elk river, ikso'ri⁹³

Salmon creek, toktowōka

Eel river, wiyot

Palmer creek, wedjodjotog

Strongs creek, geLwot

Price creek, weLok

Van Duzen river, kigērgodolil, kigdūrgōdolti

Salt river, oka't

Francis creek, topōchochwil

Williams creek, Lōwē'aka

Braustadter creek, gigērton

Guthrie creek, lolito'dek, loliso'tak

Oil creek, dotōwōk

Tom Brown gave metehkor as the name of the Yurok dialect spoken at Trinidad and Little river, saying that the people at Big Lagoon to the north of Trinidad spoke differently.⁹⁴

Grizzly Bluff, the ridge between Williams creek and Price creek, was called wiritildodj, and the point of Grizzly Bluff opposite Van Duzen river was kadjo'b-dātigērdoli.⁹⁵ There were many acorns produced on this ridge, which furnished food for numerous grizzly bears.

Above How creek there is a slide where fossil clams, abalone, etc., are said to be found. It is called kotwāryūwok. The name of only one of the numerous prairies was obtained, that of Arcata Prairie, gudini'. The names of the trails have been given on page 231.

⁹⁰ *Topōdērōs*, an onion-like food plant. Name said to mean "wild potato creek come out to the river."

⁹¹ George Davidson, *Pacific Coast Pilot*, p. 102, 1869, gives Qualawaloo as being the Indian name of Humboldt bay.

⁹² See footnote 75.

⁹³ George Gibbs, *op. cit.*, p. 131, gives the name as Kashareh. The Coast and Geodetic Survey chart of 1858 gives the name, Mowitch, but this is a name introduced by the whites from a Chinook word meaning deer or elk.

⁹⁴ According to A. L. Kroeber this name is probably the Yurok name of Little river, metsko, and site 2 at its mouth, see page 297.

⁹⁵ The latter half of this name occurs also in the name of two creeks tributary to Mad river. See footnote 90.

Athapascan Geographical Names

Jim Brock, born at site Y, gave the Athapascan names of places along Mad river as far up as Maple creek, and John Stevens, born at tsē-didis-ten, two miles below Maple creek, gave the names of places between there and Blue Lake. The following are the place names:

Site 4, kidjēhōlin-tin⁹⁶

Site 5, djēdjōlineme

Site A, enukakachi⁹⁷

Island, tāsāsāntuknt, tāsāsānnukut

Site B, tāsōl-tin⁹⁸

Site 6, yegidilos-ten

Site 7, tet-ming-a, "brush-edge"

• Mill Creek falls, nilin

Site C, klōche-nā'lin-tin, "flat(?)-creek-place"

Site D, kos-tenaie-ten, "wild potato-?-place"⁹⁹

Site E, mis-krit, "bluff along"¹⁰⁰

Site F, holchē'k-me', "nettle-?"

Site G, klōchimēik'il-tin¹⁰¹

Site I, tāchenkālehwē-ten¹⁰²

Site 9, tidil'tin¹⁰³

Site J, klokwō'seskō-ten, "sturgeon-?-place"

Site K, klōkai-kemēklōk¹⁰⁴

Site L, yāhōtkete-ten

Site M, genāsā'nime

Site N, tsa-minilgetindik-tin, "rock-?-place"

Site O, tōi-hunsēl-ten, "?-sun-place"¹⁰⁵

Site P, kaiaidikik-tin

Site Q, tsa-tikai-tin, "rock-?-place"¹⁰⁶

Site S, djemashun-dāsun-den, "fern-?-place"

Site T, kōchwēkē-ten¹⁰⁷

Site U, khōkwo-siltin-tin, "redwood-?-place"¹⁰⁸

⁹⁶ Name said to refer to the "river going down." Nearly two-thirds of the names have the locative suffix, of which the variations *-tin*, *-ten*, and *-den* were noted. P. E. Goddard, Notes on the Chinla, present series, x, 282, 1914, uniformly writes *-dīn*.

⁹⁷ Name said to refer to the "village on the other side."

⁹⁸ Name said to refer to a kind of edible "grass" growing there, a plant three feet high called *honsisaliwhch*, probably wild caraway. See heading, Ethnobotany, and footnote 80.

⁹⁹ Name said to refer to digging "wild potatoes" growing in wet and marshy ground and washing them in a "lake" at this place.

¹⁰⁰ The Jumping dance was said to be held here.

¹⁰¹ Name said to refer to getting fish here, including smelt, *tedintil*.

¹⁰² Name said to mean "fern roots make them place," *tāchenkā* being the edible fern roots.

¹⁰³ Name said to refer to a smooth river, favorable for catching salmon.

¹⁰⁴ Name said to mean "they grow like wild oats." A prairie was near by on which *klōkā*, wild oats, grew, and there were pounded into meal to be eaten.

¹⁰⁵ Name refers to the timber being so dense that there was but little sunshine.

¹⁰⁶ Name refers to white rock, now buried in sand, which was visible for a long distance.

¹⁰⁷ *Kōchwēkē* is an onomatopoeic name of a bird, possibly the quail.

¹⁰⁸ A flat prairie with one big redwood log to which the name refers.

- Site V, *dāmā-milautilin-tin*¹⁰⁹
 Site W, *itsin-ietū'lin-tin*, "go down-?-place"¹¹⁰
 Site X, *itikikū'-mān-tin*, "woodpecker-?-place"
 Site Y, *itsin-ohogindis-tin*, "go down-?-place"¹¹¹
 Site Z, *mis-kritikrit*, "bluff-?"
 Site AA, *klokeche*
 Site AB, *djādenesnō-ten*
 Site AC, *taikēw-shun-den*, "sweathouse-?-place"
 Site AD, *mis-kenē'hu-ten*, "bluff-?-place"
 Site AE, *mikētime*¹¹²
 Site AF, *gestakat*¹¹³
 Site AG, *khaiyame*¹¹⁴
 Site AH, *tsē-inātūlwo-ten*¹¹⁵
 Site AI, *djinākhōe-ten*¹¹⁶
 Site AJ, *tolkaie-ten*¹¹⁷
 Site AK, *dj'ēndjēe-ten*, *dj'ēndjē-what*¹¹⁸
 Wiyot boundary, *tsē-tenā'tūlwo-ten*¹¹⁹
 Cañon creek mouth, *who'ntā*, "houses"
 —, *mis-tā-ten*, "bluff-?-place"¹²⁰
 —, *khōkwo-tāche-ten*, "redwood-?-place"¹²¹
 Dry creek mouth, *ārtes-slandjēōlin-tin*, "grasshopper-?-place"
 Site below Foster creek, *whotsdjōtāche-tin*¹²²
 Site on Foster creek, *ituke-nōle'-tin*, "up-waterfall-place"¹²³
 —, *k'ēyāme*¹²⁴
 —, *yinok*, "south," or "up stream"¹²⁵
 —, *tsē-didis-ten*¹²⁶
 Black creek mouth, *hotintēlime*¹²⁷
 Maple creek mouth, *tilchēhūērkut*, *dilehērhūērkut*
 Boulder creek mouth, *yinālinōwhat*

¹⁰⁹ *Dāmā*, a kind of dark wood growing to a size of four inches in diameter.

¹¹⁰ Name said to refer to a bend in the river here.

¹¹¹ Name refers to the trail going down from Liscom Hill Prairie, *holtsista-tin*, to the village.

¹¹² Name said to refer to being behind North fork of Mad river.

¹¹³ Name said to refer to a deep fishing hole.

¹¹⁴ Name said to refer to an eddy at the base of a waterfall.

¹¹⁵ *Tsē*, sticks, which were left there after a prayer. See page 253.

¹¹⁶ Name said to refer to a prairie.

¹¹⁷ Name said to refer to shining gravel.

¹¹⁸ Name refers to a strong sweep of the wind at that place.

¹¹⁹ Name said to refer to "many rocks in the river." Cf. the name for site AH. *Tsē* means rocks, also sticks.

¹²⁰ First village above Cañon creek on the northeast side of the river, position not definitely located.

¹²¹ Second village above Cañon creek on the northeast side of the river, position not definitely located.

¹²² Three houses, three or four miles below the mouth of Maple creek. Name said to refer to a low prairie.

¹²³ Same name also given to a prairie half a mile up the creek from its mouth; *ituk*, up, also, east.

¹²⁴ Location not determined; an eddy, a deep fishing hole. See similar name for site AG.

¹²⁵ Two houses on the east side of the river, two or three miles below Maple creek.

¹²⁶ Ten or more houses two miles below Maple creek.

¹²⁷ Name said to refer to a prairie near by, known as *hinukōrehēnditen*.

The following are the Athapasean names of creeks along Mad river:

- Mad river, nilin-taike¹²⁸
- Mill creek, nāwilin
- Warren creek, kāghuntai-tin¹²⁹
- Lindsey creek, honsokhot
- Hall creek, djonohat
- North fork of Mad river, gināndē'hōt
- Wind creek, dj'ēndjē-whot¹³⁰
- , ārtēs-slanke, "grasshopper-?"
- First creek below Cañon creek, mis-kwo
- Cañon creek, ginātsānō whot
- Next creek east, getsē'r-whot
- Dry creek, ārtēs-slandjēōlin, "grasshopper-?"
- First creek north of Foster creek, sitdjikaite, sitdjitā-whot
- Foster creek, djelūō-whot¹³¹
- Butler creek, dj'ēndjē-whot¹³²
- Black creek, tsē-tāk-whot
- Maple creek, djemētā-whot¹³³
- Boulder creek, yinālinōwhot

Wiyot Names Obtained by Kroeber and Waterman

A. L. Kroeber and T. T. Waterman in the course of other studies obtained a considerable number of Wiyot names of places, not alone in the territory of the Wiyot but in the territory of the surrounding peoples as well, and also a list of Yurok names of places in Wiyot territory. The orthography in these lists is as taken from a manuscript of Dr. Kroeber's and is as follows: L, surd l, perhaps usually spirant, but probably sometimes affricative; g, spirant, always in Yurok, often in Wiyot; q, velar; x, postpalatal spirant; š, nearly like sh; er, vocalic r; a, similar to a in hat. The Wiyot names for the various neighboring peoples follow:

- Crescent City and Smith river Indians, dalawa
- Karok Indians, gura-dalil
- Karok language, gura-dalil-rakwe-lak or denakwate-lak
- Hupa Indians, hap'tana
- Upper Trinity river Indians, deiwin
- Chilida and Whilkut, wiš-ašk¹³⁴

¹²⁸ A small river or creek is called *nilin*, a large river, *hantna*.

¹²⁹ Name said to refer to birds, like crows, flying about.

¹³⁰ See footnote 118.

¹³¹ Name said to refer to the many fish, including crooked nose salmon, that go up this large creek.

¹³² See footnote 118.

¹³³ *Dj mēwhung*, white pine.

¹³⁴ Wiši, inland, east. The term Wishosk, through a misunderstanding, has been erroneously applied as a designation of the Wiyot by early writers.

Athapasean language, wiši-lak
 Non-Athapasean people of upper Mad river, da-sulatelu
 Wiyot Indians on Mad river, batwat-dare-dalil
 Indians on Humboldt bay, wiki-dare-dalil
 Wiyot Indians on Eel river, wiyot-dare-dalil

The Wiyot place names, presumably either archaeological or modern village sites, as obtained by A. L. Kroeber and T. T. Waterman, follow. They are arranged in order down the coast and up each succeeding river. Some of them can be identified with sites located by the writer; others are perhaps second names for sites mentioned in the writer's lists; while still others are undoubtedly sites either not located at all by the writer or sites for which he obtained no names. Two of the informants were Yurok Indians at Trinidad who knew both the Wiyot and the Yurok names, but doubtless the pronunciation of Wiyot names is more or less modified. And for that matter, the writer noticed a considerable variety of pronunciation among the Wiyot themselves.

Mouth of Wilsons creek, dalil-rukiwar, "stream-?"
 Requa, katka-dalil
 Weitchpec, takeluwali
 Orleans, gatsewinas¹³⁵
 Medildiñ (Hupa), haluwi-tulaliyut-lu, haluwi-talaleyuL¹³⁶
 Xōwuñkut (Hupa), dabotšere
 Gold Bluff (Yurok ešpen), eškapš
 Orick, hapš
 Below Bair, kawa 'Lakw¹³⁷
 Bair, tauatapLagerawakw¹³⁸
 Berry, dalekwuta 'u, dalekwuta 'L¹³⁹
 Stone Lagoon (Yurok, tsahpekwo), tsi 'puš
 Big Lagoon (Yurok oketo), ri 'tsap
 Patrieks Point, tširokwan¹⁴⁰
 Wooded point beyond, datšai
 Near a mill, talaLkakwo
 Trinidad, dakatšawayawan, dakatšawayawik¹⁴¹
 Site 1, dapelo 'L
 Honda Landing, dotwil
 Site 2, pletkašamale, pletkaLšamaliL¹⁴²

¹³⁵ Orleans is the seat of several Karok villages.

¹³⁶ *Haluwi*, boat. For location see map in present series, I.

¹³⁷ *-akw*, locative suffix, at, in, on. This village on Redwood creek is perhaps site M in P. E. Goddard's Notes on the Chilula, present series, X, 1914.

¹³⁸ Site P of Goddard's Notes on the Chilula.

¹³⁹ At the bridge five miles above Bair.

¹⁴⁰ An important place in myths.

¹⁴¹ George Davidson, Pacific Coast Pilot, p. 104, 1869, gives the Indian name of Trinidad bay as Sho'-ran.

¹⁴² *Plet*, rock; *kasam*, small.

Mad River bridge, katšewinatš
 Site 9, we'tso
 Site o, derawa-weraya-yegani
 Site z, dat-ikwog-ak, "up-?-at"
 Site y(?), (Yurok oslegoi), dariidiwiyagak
 Site ah(?), dagatša-wogerak¹⁴³
 Murphy, dat hanetkek, "up-?"¹⁴⁴
 —, dariwetšaruwe¹⁴⁵
 Three Cabins, pleta-lanleli'n, "rocks crossed"
 Rock point, plet-kukatš¹⁴⁶
 North Spit lighthouse, kas-wegaramek¹⁴⁷
 Site 14, katawayawik
 Site 15(?), walep¹⁴⁸
 Site 16(?), lalil-wak, "stream-at"¹⁴⁹
 Site 17, hieगतgak, hieratgak
 Site 21, watšelwatšk
 Samoa, tabayat
 Site 23, witki¹⁵⁰
 —, kotsir, "crow"¹⁵¹
 Site 31, tokelomigimil¹⁵²
 Site 39, mipet
 Site AL, goketen, koktin
 Jacoby creek mouth, širuktami
 Site AM, kumaidada
 Site AN, kawelats
 Near Eureka, moper-akw
 Site 67, dulawat
 Site 68, atberol
 Site 69, tšarutšitšiwil
 Site 70, taLekalil
 Flanagan mill, hakweša

¹⁴³ Described as being west of Bald mountain in the drainage area of North fork.

¹⁴⁴ On the ridge northeast of Maple creek.

¹⁴⁵ On Mad river about fifteen miles above Blue Lake, which would make it near Boulder creek, if any reliance can be placed on the estimate of the distance.

¹⁴⁶ A large point of rock on Mad river upstream from the last.

¹⁴⁷ South end of North Spit; *kas*, small.

¹⁴⁸ Cf. name for site 113.

¹⁴⁹ There is a small marsh and slough in front of site 16, which, according to early Coast and Geodetic Survey charts, were formerly more pronounced than at present.

¹⁵⁰ Given by a Yurok as the Wiyot equivalent for his name tenho, which was near Samoa on the line of travel from Gunther island to Mad river; hence it must be site 23. The name witki was said to refer to a dance held here, agreeing with a statement of Robert Gunther that the Indians used to dance at site 23.

¹⁵¹ The Yurok name enterqer was said to refer to a creek or slough running parallel, probably meaning either a small slough in a marsh or a channel in the tide flats. It was south of site 31 (Yurok eni'qolet; Wiyot, tokelomigimil) with two inhabited places between, whose names had been forgotten.

¹⁵² The Yurok equivalent eni'qolet is said to mean "sand-dunes go over." Old sand-dunes over twenty feet in elevation now covered with beach pine reach to the bay near site 31 and the name was given perhaps in memory of the time when fresh sand-dunes encroached upon the bay.

Butcher, site 71, tšewakwer-akw
 Fort Humboldt, site 72, tšuwatškerer
 —, wamel
 Site 73, kutsowelik
 Site 77, ikšare
 South of Elk river, tarogapli
 Site 79, tšerokigetšk
 —, potilik
 —, plets-wak, "rocks-at"¹⁵³
 Fields Landing, dji'djar
 Site 90, dakduwaka
 —, legetkn¹⁵⁴
 Site 112, bimir¹⁵⁵
 Loleta, katawalat
 Fortuna, dakwagerawak¹⁵⁶
 Rohnerville, haki-gaswa
 Alton, watsayeridil
 Hydesville, tšiwilit
 Riodel, dakimak¹⁵⁷
 Ferndale, butšatšwil
 Site 114, dakdayogak
 Site 115, lalitara'dek
 Site 117, datogak
 Bear river mouth, tšwaregadatsil
 Mattole river mouth, wetšaril

The following are the Wiyot names of rivers and creeks as obtained by Kroeber and Waterman:

Klamath river, ikti'n, hikti'n
 Trinity river, takeluwaliL
 Redwood creek, darebus, hale-wiši¹⁵⁸
 Stone Lagoon, tsi'puš
 Big Lagoon, ri'tsap
 Little river, plet-kašam-ale, "rock-small-?"; plet-kašamalil
 Mad river district, batawat
 Mad river crossing, takelawaku¹⁵⁹
 Warren creek, derawa-weraya-yegani
 Vance creek, swaptil-haluwi-lalil, "boat-creek"
 Lindsey creek, taboderuš-datige-ralil, "wild potato-?creek"

¹⁵³ This name is identical with that of site 48, but judging from the meaning, "rocks-at," there might be more than one place with this name.

¹⁵⁴ The Yurok equivalent leplen was on a promontory, perhaps meaning a point of high land as at site 102, or perhaps a point of marsh as at site 108, see footnote 78. Two Yurok informants disagreed as to its position, one placing it on the South Spit and the other at the south end of the bay.

¹⁵⁵ The location was somewhat confused in the information given by the Yurok informants, but was definitely placed by one Wiyot at the breakwater, site 112.

¹⁵⁶ Cf. with names of sites AR and AV.

¹⁵⁷ Below Scotia.

¹⁵⁸ *Wiš*, east or inland.

¹⁵⁹ Probably opposite site 7, which Tom Brown mentioned as a ferry.

North fork, ruliṭ
 Mad River slough, tabagaukwa
 Humboldt bay district, wiki
 Daniels slough, mipet
 Freshwater creek, kumaidada
 Ryan slough, kawelats
 Elk river, iks̄are
 Salmon creek, dakduwaka
 Eel river district, wiyot
 Van Duzen river, haki-tege-rali¹⁶⁰
 Salt river, hoket
 Guthrie creek, lalitara'dek
 Oil creek, datogak
 Bear river, tšwaregadatsil
 Mattole river, me'dol metol

Among the miscellaneous Wiyot names obtained by Kroeber and Waterman are the following:

Redding Rock, tšugitšetšwelage. This is a rock 94 feet in elevation and famous for its mussels, situated five miles offshore opposite Gold Bluff.

Trinidad Head, klonetšk.

A marsh near site 67, hetšel. This is probably Bird island.

Cape Mendocino, tsekioṭ.

Bald Hills, between lower Redwood creek and the Klamath, talawulitskilik.

A high mountain between Mad river and Redwood creek, probably Chaparral mountain, yerded'hi.¹⁶¹

Bear River mountains, tsakiuwit.

Dows Prairie, plet-alawakwann, "rock-?"

Arcata Prairie, gadene, gudinin.

Kneeland Prairie, guketš.

A place near Singley on Eel river, wukl-akw. This corresponds with the name woclok obtained by the writer for the trail over which the party of L. K. Wood was guided to Eel river.

Table Bluff, raluaka. This corresponds with lalōekā, the trail along the ridge of Table Bluff.

Some of the Yurok information regarding the south end of the bay was confusing, ayo, "ferry," being given as the Yurok name of a village whose Wiyot equivalent was variously given as haluwil, "ferry," and tektuwit. The two names together would correspond to toktowoka-holowot, the trail from site 90 to the top of Table Bluff.

In the *Journal of American Folk-Lore*, A. L. Kroeber¹⁶² mentions twutka-dalagerili as being on Eel river opposite Table Bluff. As the ending of the name seems to be the same as the ending of the names for the mouths of Lindsey and Hall creeks, the writer surmises that this is the name for the mouth of McNulty slough or some other slough of the vicinity. In the myth concerning this place men embark in a boat and go across the ocean to a place called shure, where a woman is obtained. After the marriage the couple live at dapeletgek, Arcata Bottom.

¹⁶⁰ Cf. *haki* with the name for Rohnerville; and for *tege-rali* see footnotes 95 and 90.

¹⁶¹ See footnote 65.

¹⁶² A. L. Kroeber, *Wishok Myths*, *op. cit.*, p. 105.

Yurok Names Obtained by Kroeber and Waterman

The Yurok called their southern neighbors speaking the Wiyot language the weyot or weyot. Such Yurok geographical names obtained by Kroeber and Waterman as occur within the limits of the accompanying map, plate 1, will here be given.

Trinidad, tsuroi

Site 2, metsko¹⁶³

—, negeqwic¹⁶⁴

Strawberry creek, poyura

—, pa'oluš, "water find"¹⁶⁵

Site 4, ma'awor¹⁶⁶

Site 5, šepola, "prairie"¹⁶⁷

Site A, tegwol¹⁶⁸

Site 7(?), ošoq¹⁶⁹

Mill Creek falls(?), lohlqoekonan, "rock has"¹⁷⁰

Site 9, erlerw¹⁷¹

—, nerqerq, wo'men¹⁷²

Lindsey creek (?), otegoišolege'L, "they dig wild potatoes"

—, otegoiumernerī

Blue Lake, ošlegoi

Site 23, teuhpo¹⁷³

—, erterqer¹⁷⁴

Site 31, eni'qoleL, "sand-dunes go over"¹⁷⁵

¹⁶³ Had four houses and one sweat-house. See footnote 94.

¹⁶⁴ Location unknown, but to the south of Little river there is a cliff of blue clay filled with fossil mollusks and springs, the water of which accumulates in freshwater lagoons worthy of names.

¹⁶⁵ Possibly either the creek at site 3 or a freshwater lagoon.

¹⁶⁶ Had seven houses and one sweat-house.

¹⁶⁷ Described by different informants, both Yurok and Wiyot, as a place of unusual importance, being the seat of the Jumping dance. Located upstream from erlerw, but only about half a mile from the ocean. It must be site 5. It was said to have ten or fifteen houses and two sweat-houses. The writer regarded site 5 as an uninhabited archaeological site on top of the bluff just above site 4. It was used at times somewhat as we use picnic grounds, hence the "ten or fifteen houses" must be considered to comprise all the houses at site 4 together with any and all houses in the vicinity.

¹⁶⁸ Had three houses.

¹⁶⁹ Upstream from šepola; had five houses and a sweat-house.

¹⁷⁰ The only description is that it was on Mad river about a mile from the mouth. The trail to the world of the dead was believed to begin here. The name meaning "rock has" would suggest Mill Creek falls. Site 8, a place of mythological interest, was either at the falls or not far away.

¹⁷¹ The name was said to refer to an abundance of green grass, perhaps some food species. It was located about two miles upstream from tegwol and had twenty houses. We would hardly expect one village to have so many houses, hence we must conclude that the name was given to the district, comprising several villages in the vicinity of site 9.

¹⁷² Two uninhabited places apparently on the north side of Mad river somewhere below Lindsey creek.

¹⁷³ See footnote 150.

¹⁷⁴ See footnote 151.

¹⁷⁵ See footnote 152.

- , yotsoqgei, "boat portage"¹⁷⁶
 —, olog, "floats" or "swamp"¹⁷⁷
 Freshwater, site AM(?), hiketš
 Site 67, olog, "floats"
 —, qwo'mo'
 Site 79, oknuL, eknuL, "deep water"
 Salmon creek mouth, lamal, "eel-pot"
 Site 90(?), ayo, "ferry"¹⁷⁸
 —, leplen, leplem¹⁷⁹
 Site 112, pimin¹⁸⁰

ABORIGINAL POPULATION

Expedition of McKee, 1851.—At the time of the gold excitement in California, the federal government had no satisfactory information regarding the numbers, characteristics, and environment of the Indian population of the state, and in consequence Congress made a special appropriation for the purpose of obtaining the desired information. Three special commissioners were appointed, Colonel G. W. Barbour, Dr. O. M. Wozeneraft, and Colonel Redick McKee, who had all arrived in California by January 8, 1851.

In less than two months this commission made a majority report estimating, on the basis of information derived from such of the old settlers as had travelled extensively among the various tribes, that the Indian population of the state was between 200,000 and 300,000. But McKee sent in a minority report in which he said that from his information he "would greatly reduce the number" of Indians as estimated by the other commissioners. His opinion no doubt was influenced by the rugged, barren aspect of the coast as seen from aboard ship, and noting the altogether too frequent tendency of the Californian to exaggerate, he decided to take the opposite extreme.

In August, 1851, McKee left Sonoma, heading an expedition which spent four months visiting the Indians of Clear lake, Eel river valley, Humboldt bay, and Klamath, Salmon and Scott rivers. The party contained about forty men, of whom most were an escort of soldiers under Major H. W. Wessells, U. S. A. The entire scientific staff consisted of one person, George Gibbs, a practical topographical engineer

¹⁷⁶ An undetermined place understood to be a portage between the ocean and Mad River slough.

¹⁷⁷ The most important place with this name was on Gunther island, but there was understood to be a second place with the same name on Mad River slough.

¹⁷⁸ See page 296.

¹⁷⁹ See footnote 154.

¹⁸⁰ See footnote 155.

who had previously been attached to the Indian commission in Oregon, and who was acquainted with the Chinook jargon which it was erroneously supposed would be of service in communicating with California Indians. Gibbs mingled freely with the Indians, dividing his time between map making and language study, although hampered by lack of interpreters.

Redick McKee occupied himself with his duties as business manager of the expedition and in gathering knowledge concerning the Indians by conversing with the "gentlemen" of various callings found in the mining camps. John McKee acted as secretary. The several journals kept by members of this expedition and their notes and correspondence furnish us with some of our first information of the Wiyot as well as other tribes of northern California.¹⁸¹

It might be mentioned that the object of the expedition was to make an impression upon the "savage" by a display of pomp, by expending an enormous amount of money in the distribution of a few cheap presents, and by making treaties with promises of enough annuities to bankrupt the government. The *Alta California* of July 10, 1852, says: "The act creating three Indian Commissioners for California was passed during the session of 1849-50. . . . \$30,000 was appropriated. . . . At the session of 1850-51, \$25,000 more was appropriated. . . . Thus upon a cash basis of \$55,000, a debt of nearly \$800,000 has been created!"

McKee's Estimate of Population.—McKee reports that "on this journey, as elsewhere in California, I have found the Indian population almost universally *overrated* as to numbers, and *underrated* as to intelligence and capacity for improvement. . . . I make the actual number less than one-half (generally about two-fifths) of the number usually estimated by the settlers." He estimated the Indian population of the greater half of the drainage area of Eel river—"on the mountains and valleys of Eel river, south, middle, and Vanduzen's forks, and about its mouth"—to be about five hundred, a most curious estimate indeed when we consider that the river is the fourth largest in California. He also placed the population of "Humboldt bay and north to Mad river" at three hundred.

In order for us to put the correct value upon these figures it would be well to bear in mind that parties of white men had begun to over-

¹⁸¹ R. McKee, 33 Cong. spec. sess., serial no. 688, doc. 4, pp. 134-235; H. W. Wessells, 34 Cong. 3 sess., serial no. 906, doc. 76, pp. 59-68; George Gibbs, *Journal*, vocabularies, etc., in H. R. Schoolcraft, *Indian Tribes*, III, 99-177, 428-455.

run the country a few months previously and had already fired upon the Indians in several places, killing some, so that it was with great difficulty that McKee induced them to come into his camps. Hence it was that the preconceived ideas of McKee in regard to the number of Indians in California were confirmed.

McKee made a few statements indicating that he found the Indian population of northern California on the decline. He said: "For many years past the Indian population has been rapidly diminishing by diseases introduced by the whites, internal dissensions, and in some cases by want of food. At Humboldt bay and at other places on the coast, where they depend almost wholly on fish, crabs, etc., many sicken and die every winter."

Estimates of Gibbs and Wessells.—Probably most of the information on the Wiyot Indians was obtained during a five days' stay near the present site of Fortuna. Though only sixteen months had elapsed since the discovery of Eel river, there were already about thirty settlers with seven or eight farms taken up. One of these settlers had married a Wiyot woman but had not had time to acquire much of the language. However, he was of some service to Gibbs and accompanied him wherever he went while in Wiyot territory.

Gibbs made a two days' canoe trip down the river to within two miles of the mouth, visiting the Indian villages, which "were very numerous, but consisting generally of only two or three families," whose appearance was very wretched, much sickness prevailing everywhere. "The principal diseases noticed," says Gibbs, "were sore eyes and blindness, consumption, and a species of leprosy; not however, the result of syphilis, which has never been introduced. From their own accounts, their numbers have been greatly thinned by a disease, from the description appearing to have been *gastritis*." In addition to other information it was learned that the tribes on the coast from Cape Mendocino to Mad river and as far up Eel river as the mouth of Van Duzen river spoke substantially the same language, though the dialect on the bay differed from that on Eel river. The people in this area were known by their neighbors as Wee-yot. The number of those on Eel river and Humboldt bay was thought to fall short of five hundred.

Captain H. W. Wessells says that five days were consumed in a fruitless endeavor to gather the Indians, numbering about three hundred on lower Eel river, that a treaty might be made; but the means of communication proved so imperfect that nothing could be done.

The three accounts of McKee, Gibbs, and Wessells together throw light on the condition of the Wiyot, but when it comes to an estimate of population, McKee comments upon the difficulty of forming an opinion. In all the accounts scarcely any mention is made of the Indians living on the bay or on Mad river and, judging by the route taken, the principal Indian settlements were probably not visited at all. Hence the estimates are decidedly too low.

As a consignment of goods was landed at Trinidad, McKee made a side trip by going from Arcata to that place, where he found fifty Indians whom he called the Kiri, their chief being Oq-quā.

Estimate of Buchanan, 1853.—In February, 1852, Colonel R. C. Buchanan was sent to establish a military post on Humboldt bay. Eighteen months later he forwarded a most excellent, four-page report on what he called the So-lot-luck Indians¹⁸² living on Humboldt bay and on lower Eel and Mad rivers. Though the entire report contains much of ethnological value, we will quote but a little concerning the population, diseases, and probable ultimate extinction of the tribe.

Their peculiar habits of life render them especially liable to scrofulous complaints, and accordingly it is a most common thing to see them grievously afflicted in this way. From the character of their food, the very general habit of continued intermarriage, and the miserable huts in which they dwell, it follows that they have much hereditary disease, and are consequently not long lived. The majority of those with whom I have met seem to be chiefly affected in their *eyes*, in very many instances having *lost one*; and I am informed by assistant Surgeon Dyerle, who has been over a large portion of California, that there are decidedly more severe cases of these scrofulous affections among them than among any others that he has seen. . . . The *So-lot-lucks* number about eight hundred souls, two-thirds of whom are women and children, and about two hundred and fifty warriors. . . .

It would . . . seem unnecessary for me to favor the department with any reflections on the subject of our Indian relations, as such reflections would probably be considered much more sound by myself than by any one who might read them. I will, therefore, content myself with the remark, that among these people, and all others of the Indian tribes of our country, the great laws of civilization and progress are surely developing themselves, and as a consequence a few years more will number them with the things that *were*. From their difference of habits and interests, engendering hostility among themselves, no *general war with them* need ever be apprehended; and hence the steady encroachments of the white man, from every direction, will produce the certain, though perhaps gradual, result of their utter annihilation.

Summary of Estimates.—Buchanan's estimate of 800 Wiyot in 1853 is probably very near the correct number for that date, though that would not be at the time of their greatest prosperity.

¹⁸² R. C. Buchanan, *op. cit.* (see footnote 21 of present paper), pp. 23-26. According to A. L. Kroeber *da-sulatelu* is the Wiyot name of a non-Athapasean people of upper Mad river. See page 293.

Various epidemics, like smallpox, measles, and fevers, starting in the frontier settlements of the whites, are known to have spread over the country in advance of the settlers themselves,¹⁸³ one example being the epidemic of smallpox in 1781 sweeping from the Missouri river to the Pacific. After the settlement of the Columbia river there were several epidemics of measles and fevers. In 1838 an epidemic of smallpox originating in these settlements travelled south as far as San Francisco bay, and General Vallejo thought that 70,000 Indians died in northern California from its effects.¹⁸⁴ It is not positively known that any of these epidemics earlier than 1850 reached Humboldt bay, but at that date consumption was doing its deadly work and subsequently has been the disease claiming most victims. Pioneers of the region speak of the large number of graves found at various places as early as 1850.

Veneral diseases, both syphilis and gonorrhoea, were introduced after 1850, and though the Wiyot were probably as restrained as most peoples, when once these diseases obtained a start they spread with rapidity because of the crowded conditions in which the Indians lived. It is claimed that gonorrhoea quickly became well nigh universal among the Indians, who had no method of treating the disease; with the result that after a number of years of constant drain upon their vitality great numbers died, especially when other afflictions supervened. It also lowered the birth rate, so that at the present time there are but few children among the Wiyot.

Now as 450 Wiyot (constituting the entire stock, except for a few who were intermarried with whites) were removed to the reservation in 1860, and as 800 appears to be a conservative estimate for 1853 after some decrease had taken place, we might venture to put the Wiyot population at 1000 previous to any white influence. These are likely to have been distributed about as follows: 250 on Mad river, 350 on Humboldt bay, and 400 on Eel river. If asked to give an extreme figure for the native population residing within the limits of the Wiyot territory at any past time, the writer would say 1500, and consider any higher figure pure folly.

Comparative Density of Population.—James Mooney¹⁸⁵ has esti-

¹⁸³ James Mooney, *Bur. Am. Ethn., Bull. 30, part 2, p. 286, 1910*; John Dunn, of Hudson Bay Co., eight years resident of company's territories, *The Oregon Territory and the British North American Fur Trade* (Philadelphia, 1845), pp. 83-85.

¹⁸⁴ *The Works of Herbert Howe Baneroft* (San Francisco, Baneroft Publishing Co., 1886), xxi, 73-74.

¹⁸⁵ James Mooney, *op. cit.*

mated the aboriginal population of the United States (3,025,000 square miles exclusive of outlying possessions) before the arrival of whites at 846,000, which would make an average density of .28 per square mile. But California was much more densely populated, the estimates varying from 705,000 as made by Stephen Powers¹⁸⁶ to 260,000 as made by C. Hart Merriam,¹⁸⁷ and 150,000 as made by A. L. Kroeber.¹⁸⁸ No serious attention should be paid to the first estimate, although made by a man having a most unusually comprehensive knowledge of the California Indian.

If the estimate made by Dr. Merriam be taken as a mean, although possibly it is too high, it would make a density of population of 1.64 per square mile for a total area of 158,000 square miles of forest, desert, and mountain together with the fertile prairies, marshes, lakes, and bays. Thus it will be seen that at this estimate California had an Indian population proportionately eight times as heavy as the remainder of the United States.

The Wiyot held about 465 square miles of territory, including the 24 square miles of Humboldt bay. If we set the population at 1000, this would make a density of 2.17 per square mile of land and water. Though the heavy redwood forest would furnish scarcely any food, either animal or vegetable, yet it is believed that there was a sufficient amount of prairie land, together with the unusually excellent fisheries, to enable the Wiyot area to support a population somewhat larger than the average throughout California, though perhaps not so large as at a few other of the more favorable locations in the state.

If we compare the Humboldt bay region with the San Francisco bay region, we find that in the latter area the principal tree growth is of scattered oaks, which both furnish an abundant food and leave room for other species of food plants. We should expect the fishing to be poorer at San Francisco bay, especially to a people not possessing boats. However, there is a considerable amount of fish bones in all the mounds, and the vegetable foods being more abundant, on the whole a larger population could be supported on San Francisco bay than on Humboldt bay.

N. C. Nelson,¹⁸⁹ in his paper, *Shellmounds of the San Francisco*

¹⁸⁶ Stephen Powers, *op. cit.*, p. 416.

¹⁸⁷ C. Hart Merriam, *Am. Anthr.*, n.s., vii, 594, 1905. See also similar figures in *San Francisco Bulletin*, Mar. 21, 1860, quoting A. S. Taylor in *California Farmer*.

¹⁸⁸ A. L. Kroeber, *Bur. Am. Ethn.*, Bull. 30, part 1, p. 190, 1905.

¹⁸⁹ N. C. Nelson, *Shellmounds of the San Francisco Bay Region*, *op. cit.*, p. 348.

Bay Region, makes a rough estimate of 12,000 as the possible aboriginal population. Within the boundaries of the area shown on his map there are 1650 square miles of land and 460 square miles occupied by the waters of the bay,¹⁹⁰ making a total of 2110 square miles. This would make 5.58 people per square mile of land and water. This appears as a rather large estimate, but is not altogether unbelievable when we consider that the Spaniards planted four missions within the area mapped, besides one just beyond its boundaries, or five out of the twenty-one in all California. The mission records and early historical accounts need to be reviewed in the light of recent investigations in archaeology and ethnology, but until this is done we can perhaps do no better than to accept the figures given above.

Population per Linear Mile of Streams.—The population of different parts of the world are usually compared by noting the density per square mile. This may be a correct method of comparing nations who draw their sustenance chiefly from the land, but it may lead to error when comparing peoples who are sustained largely by fisheries. In the latter case a more correct comparison might be made by noting the number of people per linear mile of sea coast where they derive their food from the ocean, or per linear mile of fishable streams.

The Wiyot had 40 miles of ocean coast, of which only 3 miles near Mad river and 6 or 8 miles of rocky and gravelly coast south of Eel river would be of much value as a source of food supply, the remainder of the coast being sandy and not adapted for the best of fishing. Humboldt bay has an area of 24 square miles, of which 12 square miles are mud flats at extreme low tide. The circumference of the bay is about 40 miles, and it has about 30 miles of deep and narrow channels reaching to its extremities. These channels could be used in trawling for salmon at the time of the semiannual runs. The tide extends up Eureka slough and Freshwater creek 5 miles, up Elk river $21\frac{1}{3}$ miles, and up Salmon creek $33\frac{1}{4}$ miles. These stretches of salt and brackish water, together with a few of the main sloughs, would make a total of 30 miles of streams emptying into Humboldt bay navigable for canoes, and this without counting the multiplicity of minor sloughs, which, should they all be counted, would probably make an additional

¹⁹⁰ Univ. Calif. Publ. Zool., xiv, 20, 1914, giving the area of San Francisco bay as 287.7 square miles and San Pablo bay as 112.3 square miles. To this we have added 60 square miles for the area of Suisun bay, Carquinez straits, and several of the larger estuaries. Of this total of 460 square miles about 70 square miles would be mud flats at low tide.

30 miles of navigable channels. Eel river also has about 30 miles of sloughs, counting only the main channels. Adding together, we have:

10 miles of ocean coast suitable for fishing
30 miles of channels in Humboldt bay
30 miles of larger sloughs on Humboldt bay
30 miles of larger sloughs on Eel river
<hr/> 100 miles of salt and brackish channels

To the above should be added the number of miles of freshwater streams up which salmon could ascend. Unfortunately, this figure cannot be given with exactness, because the location of falls on many of the streams is not known. However, counting 12 miles of Mad river and 5 miles of Eel river as not affected by tides, there should be between 50 and 80 miles of fresh water streams up which salmon could ascend. This makes all told from 150 to 180 miles of streams and channels for fishing. With the Wiyot population in the neighborhood of 1000, we should then have a population of 5 to 7 per linear mile of fishing streams.

RELATION OF INDIANS TO WHITES

It can be said for the Humboldt bay region that on the whole the relations between the Indians and whites in early days were here as harmonious as elsewhere in the Pacific states, which, however, is not saying a great deal, because some of the contacts were such that the present inhabitants are thoroughly ashamed of them.

To a member of the present generation, learning only a few isolated facts of the early history, it may seem that Humboldt county is preëminently disgraced by a blot of greater foulness than was ever attached to any other locality. But it is unfair to take a partial view of a few isolated facts and then sit in hasty judgment. As we increase our fund of knowledge concerning a certain period of time or a certain set of circumstances, our sympathies should be broadened. Even in the worst of criminal cases, extenuating circumstances are often found. We would make a grievous mistake by considering an isolated act in a past age apart from the environment of that age. So long as there is any degree of injustice in this present generation for which we by our toleration are more or less responsible, we have no right to judge too harshly a preceding generation.

CHARACTER OF THE SETTLERS

It is a fact that ever since the Atlantic seaboard was first settled, especially since the first wave of western migration broke through the passes of the Appalachian mountains, there have been elements of anarchy upon our frontier. The frontier has always had a noble, vigorous, intelligent, hardy, pioneer population, but at the same time it has had an ignoble, mean, shiftless, ignorant, vicious, and treacherous element of brutes, who boasted that they were white men and went armed to the teeth with rifle, pistol, and bowie-knife ready to back up their assertions. This class upon all our frontiers has been a prolific cause of many of our Indian troubles. They lorded it over the Indian and rode roughshod over all his rights; they appropriated or outraged his women; and they shot him down if he raised the slightest objection. Some Indian tribes had vigor enough to resent such mistreatment and take revenge. In such cases innocent whites often suffered severely for their inability to control the vicious element of their own race.

In the settlement of California and the other Pacific states we had the same conditions as on other frontiers, only multiplied many fold. Most of the eastern states were settled by a gradual movement which allowed the Indians time to adapt themselves to changed conditions. The Pacific states in general, and California in particular, which it is asserted was at one time about eight times as densely populated by Indians as the remainder of the United States,¹⁹¹ were settled with a rush on the discovery of gold in 1848. At that date there were many thousands of Indians in northern California who had never seen nor, perhaps, even heard of white men.

In the stream of immigration every nationality and every extreme of class and character were represented—the best and the worst from every clime. The energetic, enterprising, intelligent, forceful personality here found an arena for action. Thither also came the ne'er-do-well, the loafer, the debtor, the defaulter, the criminal, the ex-convict, to escape the consequences of their misdeeds elsewhere and to acquire wealth, as they thought, without effort. There were college men and professional men in abundance; there were the spoiled sons of wealth and nobility. On the one hand there were the educated, the refined hothouse products of older civilizations, the virtuous who had come from sheltered communities where it was easy to be good, and

¹⁹¹ See discussion under heading *Aboriginal Population*.

on the other hand the illiterate frontiersman, the coarse, the brutal, and the professional scoundrel. In fact, during the early mining days in California, there were gathered together some of the wildest, most reckless, savage, and dangerous men ever collected in a similar area anywhere in the world. As Bancroft says:¹⁹² "Human nature turned loose into an unfenced field cuts queer capers. . . . It was a paradise for wild men."

Most of the crime took the form of murder or assault with deadly weapons, there being wholesale violence and murder in many of the mining camps, and for this there was little or no punishment because every man, going about constantly armed, was considered fully capable of self defense. The murderer making the plea of self defense stood a good chance with any jury unless "Judge Lynch" presided over the trial. Helper's¹⁹³ *Land of Gold* estimates in 1854 that since the opening of the mines, California had "invested upwards of six millions of dollars in bowie-knives and pistols," and he finds for the same period 4,200 murders and 1,400 suicides, besides 10,000 more miserable deaths.

In seeking a cause for such a state of society as existed, we must bear in mind that the Argonaut came with hopes raised to the skies, unmindful of the economic laws of supply and demand which would make it imperative that a dollar's worth of labor must be performed, on the average, in order to obtain a dollar's worth of gold, lest it become as cheap as the more abundant metals. According to Bancroft,¹⁹⁴ the production of gold in California during the nine years from 1848 to 1856 was \$456,000,000, which would be about what the whole world had produced during the forty years preceding that time. Thus excitement was kept up and wealth was made by those whom fortune favored, but multitudes were doomed to disappointment, since on the whole the gold taken out cost about three times its value. It has been estimated¹⁹⁴ that in 1852 there were 100,000 men actually engaged in mining or prospecting, and that the gold production for that year averaged \$600 per man. Taking into account the good fortune of a few, this means that the majority would get one dollar a day or less, which would be quite inadequate for the bare necessities of life at the prices prevailing when almost all goods were carried around Cape Horn.

¹⁹² H. H. Bancroft, *op. cit.*, xxxv, 248, 253, 1888.

¹⁹³ H. R. Helper, *Land of Gold: Reality Versus Fiction* (Baltimore, Md.), p. 158, 1855.

¹⁹⁴ H. H. Bancroft, *op. cit.*, xxiii, 423, 1888.

Great numbers out of employment, stranded without a "grub-stake" to start for themselves, hung around the chief mining camps waiting for a change of fortune or for any excitement that might turn up. Some rallied again and again and sought new diggings, others went into a cataleptic state, a living death. Hardships were great; the death rate was high, thousands dying of privation; there was no cheering presence of women¹⁹⁵ when hope was gone; the percentage of insanity¹⁹⁶ was higher than elsewhere in the world; multitudes sought suicide; what wonder then that some became desperadoes?

CHARACTER OF HOSTILITIES

Alongside of such a society, the Indians' chances in the struggle for existence were decidedly unfavorable and they rapidly decreased in numbers throughout the state. The California Indian has almost universally been characterized by every writer of unprejudiced mind as being the most docile and harmless of creatures. He made but little resistance, yet was frequently killed for the most trivial of causes. As a newspaper editorial of the mining days states:¹⁹⁷

A horse is stolen or lost—a traveler disappears or is found slain by the roadside; the Indians are at once accused as the robbers or murderers. Execution follows quickly upon suspicion. No proofs are sought for, no trial is dreamed of. There are certain rude and turbulent characters, among all frontier populations, who delight in violence; to such men the hasty foray upon an Indian camp, and the merciless slaughter of its inmates, afford unspeakable pleasure.

In most cases where an Indian or even a dozen were killed, there were no serious consequences in the way of revenge, as was the case with more vigorous tribes in other parts of the United States. In the matter of revenge the following comments by the *New York Times* are of interest:¹⁹⁸

The country is perfectly wild...and, with the well known injustice of the miner towards anything of the genus Indian or Chinaman, and their foolhardiness, they will get up a series of little amusements in the way of pistoling and scalping,

¹⁹⁵ For some years after the discovery of gold several of the mining counties had less than two per cent females in the white population; in 1852 Trinity county (comprising all the present area of Trinity county and in addition that part of Humboldt county lying south of a line passing through the mouth of Mad river), had 23 females in a white population of 1,764. See appendix to U. S. Census of 1850, page 969.

¹⁹⁶ In 1858 a legislative committee appointed to examine the Stockton Insane Asylum reported through Dr. A. W. Taliaferro: "We believe the causes of it operate more strongly here than in any other portion of the world." See San Francisco Bulletin, Feb. 22, 1858.

¹⁹⁷ San Francisco Bulletin, Dec. 14, 1859.

¹⁹⁸ New York Times, July or August, 1858, copied by San Francisco Bulletin, May 9, 1859.

quite edifying. It is the custom of miners generally to shoot an Indian as he would a dog; and it is considered a very good joke to shoot at one at long shot, to see him jump as the fatal bullet pierces his heart. And when, in the spirit of retaliation, some poor hunted relative watches his opportunity, and attacks a straggling white man, the papers at once teem with long accounts of Indian outrages.

Not only was there the occasional killing of small numbers of Indians, but between 1850 and 1873 a considerable number of slaughters, either by state troops or by unauthorized "volunteer companies," occurred on such a scale as to be dignified by the term of "Indian wars." In 1854 Congress passed an act¹⁹⁹ appropriating \$924,259.65 to reimburse the State of California for the alleged "expense incurred and now actually paid, by the State of California, in the suppression of Indian hostilities within the said State, prior to" January 1, 1854. Again in 1861 another act²⁰⁰ appropriated \$400,000 to quiet the claims for nine "Indian wars" conducted in California during the years 1854 to 1859. One or two examples will illustrate the character of these wars. In 1859, in the vicinity of Round Valley reservation, seventy miles southeast of Humboldt bay, a campaign was conducted under the command of W. S. Jarboe from whose report to the governor we take the following extract:²⁰¹

On the 16th day of September, in Eden valley, I mustered into the service of the State of California twenty men possessing the requisite qualifications, mounted on horseback, and armed with rifles and pistols. Up to that time the Indians had killed nineteen settlers and about six hundred head of stock... and were daily committing their depredations. . . . On the night of the 20th September, they came to Eden Valley and drove off some cattle; I followed and fought them with a detachment of ten men; and from the same date to the 24th of January, I fought them twenty-three times, killed 283 warriors, the number of wounded was not known, took 292 prisoners, sent them to the Reservation. In the several engagements, I had four men severely wounded, as well as myself.

The figures here given of the number of Indians killed and captured are only for that period of time when the company was acting under the authority of the state. For a much longer time previously, parties of armed men were engaged in attacking Indians camps, and

¹⁹⁹ U. S. Statutes, x, 33 Cong. 1 sess., chap. 267, approved Aug. 5, 1854. The total expense of these wars previous to 1854 was claimed to be \$1,194,000, but in 1860 the governor showed that the real expense was not much over \$100,000. See *San Francisco Bulletin*, Feb. 24, 1860.

²⁰⁰ U. S. Statutes xii, 36 Cong. 2 sess., chap. 71, approved Mar. 2, 1861. See also chap. 70 for an appropriation of a like sum for wars of a similar nature in Oregon and Washington.

²⁰¹ Letter of W. S. Jarboe to the governor, submitted by him to the legislature on Feb. 21, 1860. An extract was published in the *San Francisco Bulletin*, Feb. 24, 1860. The original, if published by the legislature, was not located by the writer.

it was only when they had proven themselves to be "men possessing the requisite qualifications" that they got their commission, or it might better be called license, from the state. A newspaper of the time comments on this report of Jarboe as follows:²⁰²

He *fought* the Indians 23 times! Deliberate, cowardly, brutal massacre of defenceless men, women and children he calls *fighting*! He killed nearly 300 of these poor people. The *pretext* upon which these butcheries were perpetrated is that 19 settlers had been killed and 600 head of stock stolen. Now, we have the testimony of Major Johnson²⁰³ and Lieut. Dillon²⁰⁴ that not one white settler had lost his life in that region at the hands of Indians during the past year—except a person who was killed in revenge for outraging an Indian woman. In fact, all these tales of Indian hostilities, when sifted, are proved to be arrant fabrications. . . . Jarboe reports the total expense of his expeditions at \$11,143—which is the smallest amount of blood-money we ever heard demanded in proportion to the murders committed. In the slaughter of this hecatomb of victims, it is said that five of the butchers were *severely* wounded, one of whom was Jarboe himself. He has been in Sacramento nearly all winter, and his wounds have never before been heard of.

A similar war of extermination against the Pit River Indians took place in 1859. Here, where the Indians had the reputation of being the most "courageous, ferocious, resourceful" savages of California, about 200 were killed of all ages and sexes and 1200 taken prisoners. The loss to the American side was: "killed none, wounded 2," which in itself shows the desperate character of the fighting, especially when we are told that the wounded would recover.²⁰⁵

Besides the campaigns authorized by the state, volunteer companies were frequently raised for the purpose of making a sally on some Indian village. Then, if more serious troubles arose, a town would have a mass meeting and raise a company to be kept in the field sometimes for months, supported either by private subscription or by a special tax, always with the hope that the state would eventually muster the company into its service and reimburse for the outlay. A common practice of these companies was to make a day-break attack on some Indian rancheria and kill all its inmates without regard to age or sex, unless perchance they spared one or two of the younger females of pleasing appearance to take along with them.

Often a few men followed these companies for the special purpose of taking possession of young women or children whose parents were

²⁰² San Francisco Bulletin, Feb. 24, 1860.

²⁰³ Maj. Edward Johnson, U. S. A., Letter of Aug. 21, 1859, to Maj. W. W. Mackall, U. S. A., published in San Francisco Bulletin, Jan. 30, 1860.

²⁰⁴ Lieut. Edward Dillon, U. S. A., Report of Jan. 27, 1860, published in Calif. Ass. Jour., 11 sess., p. 302.

²⁰⁵ San Francisco Bulletin, Jan. 28, 1860.

slain, and selling them in the centers of population either for immoral purposes or as servants. There was a state law which contributed much to the success of this enterprise. According to this law Indians could be made apprentices or indentured to citizens for terms of ten to fifteen years. It may or may not have been intended for the good of the Indians to teach them the arts of civilization, but in practice it encouraged the kidnapping²⁰⁶ and sanctioned virtual slavery for the young and able-bodied, while the old and worn-out were left to shift for themselves.

An illuminating newspaper²⁰⁷ article on kidnapping in the Mattole valley, which is about thirty miles south of the mouth of Eel river, shows some of the causes contributing toward Indian troubles:

The region is filled at this season with American hunters, . . . many of the hunters were . . . carrying on a traffic in which they had previously been engaged, to wit: kidnapping Digger children and selling them in different parts of the country. A great many Indians have thus been shot down in cold blood by these white savages, and the inhuman practice of kidnapping is now going on with the steadiness of a regular system. . . .

Hundreds of lawless white men [throughout northern California] . . . pitch their camps from place to place through the mountains, and make their money partly by hunting, partly by stealing cattle and laying it to the Indians, and partly by the system of kidnapping above alluded to.

Humboldt county had its full share of hunters, cattle thieves, and kidnappers, and several campaigns, similar in nature to the examples²⁰⁸ given, were conducted in the Bald Hills during the years from 1858 to 1864. These led to the undoing of the Wiyot Indians, but before we proceed to show how this result came about, it will be well to say a few words about the reservation system of northern California.

RESERVATION SYSTEM

As if California did not have enough troubles of her own, she was in addition burdened with the appointees of the federal government, whose chief, if not only qualification for office was that they were good

²⁰⁶ E. A. Stevenson, agent Nome Lakee Reservation, Report July 31, 1856, 34 Cong. 3 sess., serial no. 893, doc. 1, p. 802; J. W. Denver, com'r Ind. aff., Report, Nov. 30, 1957, 35 Cong. 1 sess., serial no. 919, doc. 11, p. 298; G. M. Hanson, supt. Ind. Aff. N. Cal., Report, July 15, 1861, 37 Cong. 2 sess., serial no. 1117, doc. 1, pp. 757, 759; G. M. Hanson, Report, Dec. 31, 1861, 37 Cong. 3 sess., serial no. 1157, doc. 1, p. 459.

²⁰⁷ San Francisco Bulletin, July 23, 1857, copying Sacramento Bee.

²⁰⁸ H. H. Bancroft, *op. cit.*, xxiv, 477, 1890, says that California "cannot grace her annals with a single Indian war bordering on respectability. It can boast, however, a hundred or two of as brutal butcherings, on the part of our honest miners and brave pioneers, as any area of equal extent in our republic."

campaigners at election time. To summarize as briefly as possible the conditions in northwestern California, there were five reservations established previous to 1860. Scott River reservation, founded in 1851 about eighty miles northeast of Humboldt bay, was abandoned in a year or two. Klamath River reservation, forty miles north of the bay, was perhaps as well managed as any in the state, or perhaps misconduct on the part of the agents was not so easily noticed, there being plenty of food in the river to which the Indians could help themselves. Three other reservations, Mendocino Coast, Round Valley, and Nome Lackee were established to the south and southeast at distances varying from seventy to ninety miles from Humboldt bay.

More or less futile attempts were made to gather the Indians onto these reservations. Most of them found the kind of "civilization" introduced by the reservations an unendurable one. Hence they were continually running off and returning to their old homes at every opportunity.

In the first place, the reservations were little better than pest-houses, as a few quotations will show. A newspaper of 1856 says:²⁰⁹

Some of the agents, and nearly all of the employees, we are informed, on one of these reservations at least, are daily and nightly engaged in kidnapping the younger portion of the females, for the vilest of purposes. The wives and daughters of the defenceless Diggers are prostituted before the very eyes of their husbands and fathers, by these civilized monsters, and they dare not resent the insult, or even complain of the hideous outrage.

It is not at all essential to know to which of the reservations the above refers, since all reservations were very much alike. The progressive result of such conduct is shown by a report of a military officer²¹⁰ in 1859, who has this to say about Round Valley reservation:

A war of extermination is being vigorously waged by the citizens of Round and Eden valleys and a company of men, under one Jarboe, from Russian river, against the Indians who inhabit the country adjacent. . . . Col. Henley [ex-superintendent of Indian Affairs in California] approved of their course, and defends the acts of Jarboe and party. . . . We believe it to be the settled determination of many of the inhabitants to exterminate the Indians; and I see no way of preventing it. I have endeavored to collect them on the Reservation, and several hundred are now there—but they doubtless have a great aversion to coming in, doubtless owing in a great measure to the mortality at this time prevailing among them; some eight or ten per day having died, some days previous to my leaving the valley. This mortality is attributed to a change of diet, scarcity of food, and the great prevalence of syphilitic diseases among them.

²⁰⁹ San Francisco Bulletin, Sept. 13, 1856, quoting the California American.

²¹⁰ Maj. Edward Johnson, *op. cit.*

In 1861 Round Valley is reported to have perhaps fifty white men but only three white women.²¹¹ No self respecting Indian though a "savage" cared for such society as his wife and daughters were compelled to associate with.

In the second place, the Indian found difficulty enough in providing food under changed conditions for himself and family, without contributing his time to help support a system from which he derived but little benefit. During the two or three years of their existence previous to June 30, 1858, the three reservations, Mendocino Coast, Round Valley, and Nome Lackee dissipated a total of over \$250,000, about two-fifths going direct as salaries to the agents and the numerous white employees, while most of the remaining three-fifths went through various indirect channels to the same goal.²¹² Here are some of the processes by which public property changed to private property:

Cattle.—In founding the reservations, which are at first not surveyed, the agents bring some "civilized Indians" to help control "wild Indians" and show them how to work. Cattle are brought in at the same time at public expense. The agents, government employees, and their friends next take up claims in their own names alongside, or even within the limits of the reservation, designating them as "overflow and swamp lands" and thus acquiring in some cases one thousand acres to a claim.²¹³ For some unaccountable reason the cattle feed upon the publicly owned reservation during the time that they are being counted for the annual report but at all other times they feed upon the privately owned "overflow and swamp lands" and are considered as privately owned animals. In one case where the Indians are reduced to starvation and help themselves to a few of these cattle, the agent and government employees charged with the duty of protecting the Indians decide that an example must be made, and so shoot fourteen in one day,²¹⁴ and then find it convenient to discover in the nick of time that they had formed a conspiracy to murder all the "settlers" in the valley.

Crops.—At the time of greatest prosperity these three reservations report some 2,000 acres under cultivation producing 27,000 bushels of grain, potatoes, etc.

²¹¹ G. M. Hanson, Report of July 15, 1861, *op. cit.*, p. 758.

²¹² Round Valley reservation from the time of foundation in 1856 to July 1, 1858, expended \$34,000. The first white "settlers" entered the valley at the time the reservation was founded and in less than two years' time, while drawing salaries from the government, their improvements upon "their own land" were valued at \$25,000 to \$30,000. See Report of Agent S. P. Storms dated Aug. 14, 1858, 35 Cong. 2 sess., serial no. 974, doc. 1, pp. 658-59. Mendocino reservation for the year ending June 30, 1858, expended \$50,858 and Nome Lackee for the same year about the same amount or from the time of foundation in 1855 to 1858 a total of about \$125,000. See Report of Special Agent G. Bailey dated Nov. 4, 1858, 35 Cong. 2 sess., serial no. 974, doc. 1, pp. 650-53. H. H. Bancroft, Works, xxiv, 942, 1890, says that the reservations of California, presumably during the years 1853 to 1858, had expended a total of \$1,170,000.

²¹³ G. M. Hanson, Report of July 15, 1861, *op. cit.*, p. 758.

²¹⁴ Tehama Gazette, Dec. 4, 1858, copied by San Francisco Bulletin, Dec. 8, 1858.

Rations are issued to the white overseers and to such of the Indians as are actually engaged in work upon the reservations. The number of Indians upon these reservations is reported to be some five or six thousands, with others in the vicinity making the reservations their headquarters; but whenever a visitor comes, all but a few hundred happen to be at the time out on the hills gathering stores of acorns, seeds, and berries. Needless to say, the crops are put to a good use by those for whose especial benefit they are raised. In case of a failure in the crop, or destruction by settlers' cattle, "the cheapest and best feed that could be got would be shorts"²¹⁵ (that is, wheat bran fit only for cattle feed) brought over the mountains from the Sacramento valley.

Improvements.—As government funds become available, they are expended in the building of cattle corrals, barns, hog-sheds, store-houses, dams, aqueducts, grist-mills, and other improvements. A few years later, when the reservation is surveyed, most of these improvements as well as the growing crops and the cattle, are found to be outside the limits of the reservation upon lands acquired by the "settlers" as overflow and swamp lands, under school warrants and in other ways. Then it is that either the whole reservation is abandoned by the government or that the "settlers" are bought out for what the settlers think the improvements are worth.

The reservation system in California was at its worst during the administration of T. J. Henley (July 26, 1854, to June 3, 1859) and for some years following his term of office. Mismanagement was soon apparent,²¹⁶ though it required investigations by several special agents before he was ousted, while some of the worst of his appointees continued in office until the summer of 1861. The following quotations taken from the reports of J. R. Browne,²¹⁷ special agent of the Treasury Department, show to what extremes the government appointees would go. Speaking first of Nome Lackee reservation, Browne says:

Most of the Indians have left it, and now...there are not more than fifty to be seen within several miles of headquarters. No evidence of the results of attention, labor or the expenditure of public money is anywhere manifest. When it is considered that forty-five or fifty thousand dollars have been expended on this reservation during the past year...the result is very discouraging...

The condition of affairs at Nome Cult [Round Valley] is even more discouraging than at Nome Lackee. The former employés, some of whom reside within the limits of the Indian farms, on claims purchased by them while in public employ, refuse to remove, and defy the new overseer to dispossess them. Insubordination amongst the Indians is instigated, the fences are broken down, the cattle and hogs driven in on the crops, and all authority put at defiance. The

²¹⁵ G. M. Hanson, Report of Oct. 10, 1862, 37 Cong. 3 sess., serial no. 1157, doc. 1, p. 456.

²¹⁶ San Francisco Bulletin, Sept. 13, 1856, and various other newspapers of the state at that time.

²¹⁷ J. R. Browne, reports dated Sept. 19 and Oct. 18, 1859, 36 Cong. 1 sess., serial no. 1033, doc. 46, pp. 14-16, 18-20. For other descriptions of the reservation system in California see J. R. Browne, in *Harper's Magazine*, Aug., 1861, reprinted in W. W. Beach, *Indian Miscellany* (Albany, J. Munsell, 1877), pp. 303-322.

official notices issued by the superintendent...are treated with contempt and derision. Nothing short of military force can restrain the settlers from these outrages....

Many Indians have been killed by private companies during the past winter and spring, and a man named Jarboe now holds a commission from the governor of the State, in virtue of which he has raised a company, and has been engaged for some months past in a cruel and relentless pursuit of the Indians in this vicinity, slaughtering...without regard to age or sex....I would earnestly impress upon the department the miserable and forlorn condition of the Indians of this State. In the history of Indian races I have seen nothing so cruel and relentless as the treatment of these unhappy people by the authorities constituted by law for their protection. Instead of receiving aid and succor, they have been starved and driven away from the reservations, and then followed into their remote hiding places, where they sought to die in peace, and cruelly slaughtered, till but a few are left, and that few without hope....

The debts of the past year are so complicated with private accounts, that I am utterly at a loss to say what bills ought to be paid, and what rejected....I would also call your attention to the fact that the expenses of the service, as now conducted, are considerably in excess of the appropriation....Another confused state of affairs will be the result, and a call will be necessary for a deficiency appropriation amounting probably to \$50,000....

In April, 1858, I forwarded charges of fraud and malfeasance against the late superintendent, T. J. Henley, and transmitted additional charges and proofs by nearly every succeeding mail during that year....Nevertheless, Mr. Henley continued to act in his capacity of superintendent up to June 3, 1859, fourteen months after the original charges were preferred, and nearly a year after they were proved. The agents, sub-agents, and employés, whose testimony presented the best evidence of their unfitness for the trusts reposed in them, continued to act in their respective capacities, and no change took place except a limitation of the number of employés on the 31st of December, 1858. No remittance to pay the current expenses of the reservations, or the wages of the discharged employés, was received from May, 1858, till August, 1859, during which period there appears to have been no check upon the expenditures beyond the discretion of the late superintendent and the agents, and the power of final approval vested in the department. The great evils experienced from this condition of affairs were: the enhanced price of articles purchased on credit...; the discontent of the discharged employés, who had acquired some influence over the Indians; and the popular clamor throughout the State against what was regarded as unreasonable and unjustifiable neglect of the public interests.

Notwithstanding the reduced number of employés since December 31, 1851, the agents and sub-agents have encumbered the service with debts, of which they are either unable or unwilling to render a correct account....They have kept running accounts at stores, and no books or accounts to show the articles purchased or the prices agreed upon;...they have suffered the reservations to fall into a state of neglect and decay wholly at variance with the published reports of their prosperity. The property returns and abstracts of issues show that the amount of property accounted for is but a fraction of that which should be on hand....No adequate return of the large bands of cattle, for which vouchers have been transmitted, has been made; and the agents and sub-agents have failed to show what became of them. The independent treasury act has been violated, ...in the transmission of fraudulent vouchers;...The reservations have been diverted from their legitimate purpose, and in some cases the Indians have been

slaughtered in consequence of alleged depredations upon private property belonging to officers of the superintendency.... I am confident that nothing can be done by the new superintendent, under such a complication of affairs, to promote the welfare of the Indians. Either an entirely new *régime* must be established, or he will be hopelessly involved in trouble, and compelled... to resign.

By his original instructions, he was required to ascertain the outstanding indebtedness, and forward all claims.... While engaged in the prosecution of this inquiry, a remittance of \$80,000 was made to the agents.... But they have failed to furnish him with an intelligible account of the particular disbursement made; and he is at a loss to know what bills have been paid and what remain to be paid.... In San Francisco alone it is estimated that \$13,000 is due for purchases made by the late superintendent.... But the superintendent cannot ascertain whether the goods so purchased ever went to the reservations, or what portion of them were for public or private purposes.... Mr. McDuffie [the superintendent] seems desirous of performing his duty.... The department has refused its assent to any removals which he has recommended... without a statement of reasons. He can give no reasons without incurring the personal hostility of men who have acquired a powerful influence over the Indians, which they can, if so inclined, exercise to the absolute destruction of the service....

TROUBLES IN THE BALD HILLS

We will now speak of some of the relations of the whites to the Indians of Athapascan stock living immediately to the east and south of the Wiyot territory. Of these Indians the Chilula were among the first to come in contact with miners and pack-trains, as the trails to the mines ran through their territory. Redick McKee,²¹⁸ Indian commissioner, learned in 1851 from these "gentlemen" from the mines that:

The Trinity, Redwood,²¹⁹ and Klamath bands are a brave, warlike people... that it is not safe for parties less than eight or ten in number to travel through the country;... that mules are stolen from the pack-trains, and the drivers murdered and robbed when returning, a short distance from the party. In return the packers *shoot Indians* at every opportunity, killing innocent persons more frequently than the guilty. The whites are very much exasperated against the Indians.

As for this charge against the Indians, it may or may not be in part the truth, for all reports of the mountain Indians are consistent in describing them as having more spirit than the lowland Indians, about Humboldt bay. However, great allowances have to be made for the characteristic trait of the Argonauts to exaggerate on any and every subject. The statements to the effect that the miners and packers took frequent occasion to let the Indians know that they were

²¹⁸ Redick McKee, *op. cit.* (see footnote 181 of present paper), p. 154.

²¹⁹ In quotations from early sources Redwood Indian is synonymous with Chilula, and Humboldt or lowland Indian is equivalent to Wiyot.

not overdesirous of cultivating friendly relations, we need not have the slightest hesitation in believing. Aside from an occasional Indian being killed by the whites, and the annoyance to the whites caused by petty thievery on the part of the Indians, the two races had but little effect on each other for several years, so far as the hill country is concerned.

One of the first effects of the arrival of the Americans was the slaughter of game. Game was at first everywhere abundant, but it was not inexhaustible. Hunters often shot wantonly just to satisfy their propensity for destruction. Thus in 1859 in Pit River valley²²⁰ "the deer killed were almost innumerable. One gentleman, a John Longley, killed five hundred since the commencement of winter! . . . This statement . . . may be implicitly relied upon as true, and is fully vouched for." After such a use of firearms, much of the game would be scared away to more remote regions, and Indians could not get near enough to what was left to shoot with bow and arrow.

In reading early newspapers, it became quite apparent to the writer that Indian depredations were particularly apt to follow closely upon the heels of unusual successes by white hunters. For example, in 1857 hunters are mentioned as being very numerous in the Mattole valley as well as elsewhere, while in 1858 the Indians of Eel river, in both Humboldt and Mendocino counties, are reported as being in a starving condition and committing depredations on settlers' cattle. In the same way the great success of the salmon fishing industry at the mouth of Eel river in 1858 and 1859 undoubtedly had an effect in causing a shortage in the food supply of the Indians living on the tributaries of this stream. At any rate, during the winter of 1858-1859 the Indians on the Bald Hills are reported as being "entirely starved out," and troubles continued in that quarter without interruption until 1864.

Following the wholesale slaughter of game came another encroachment of the white race. The custom of the Indians in annually burning the grass on the prairie patches to the east of the redwood belt, for the purpose of providing a supply of seeds for food, had kept down the growth of both timber and chaparral, so that on the arrival of the American he found ready pasturage for his cattle. By November, 1857, Humboldt county is reported to have 6597 cattle besides 3995 horses, mules, and hogs,²²¹ while in 1860, according to

²²⁰ San Francisco Bulletin, May 3, 1859, copying Shasta Republican.

²²¹ San Francisco Bulletin, Nov. 23, 1857.

military officers,²²² there were in the Van Duzen river region within a circle of twenty-five miles only ten or twelve whites and about two thousand cattle, with one or two exceptions not guarded or herded. Some of the cattle ranged twenty-five or thirty miles from where their owners lived. There was thus considerable temptation to the starving Indians to commit depredations, of which the newspapers of the time had considerable to say. Though specific details are not very often mentioned, the killing of one or two cattle was enough to bring out a broadside of editorial comment. In one instance²²³ as many as five cattle and one mule are mentioned as having been killed within three miles of Hydesville.

The writer does not claim to have made an exhaustive search by any means, but so far as he investigated he has learned of only thirteen white men being killed and eight wounded²²⁴ previous to the summer of 1860 within the limits of the accompanying map, plate 1, or not far beyond its borders. The best sources of information would be the early newspapers of Humboldt county, but the writer not having access to these, has searched through the files of the *San Francisco Bulletin* from October, 1855, to February, 1861. This paper made a practice of reporting quite fully and impartially all Indian troubles throughout the state, and is often a better source, where accuracy is desired, than a paper published nearer the scene of action and, consequently, more likely to appeal to local prejudice. The list of white men killed or wounded by Indians, with dates and circumstances, is as follows:

1852, February. McDermitt and Merrill killed in revenge near site BD on Van Duzen river.

1852, in the fall, two Cooper brothers killed at the head of Little Yager creek.

1854, September 18. Arthur Wigmore killed on Eel river at site AQ in a quarrel over a squaw.

1855, March. J. W. Cooper wounded at Cooper's Mills on Yager creek.

1856, October. Hempfield wounded in "battle" at the head of Cañon creek.

1856, October. Charles Hicks killed in Bear River mountains.

1856, November. Man at Trinidad killed for abusing a squaw.

1857, March. Charles Cook and James Granger killed while hunting on Mad river.

1857, August. Man wounded (?) on the trail beyond Mad river.

²²² Maj. G. J. Rains, commanding at Fort Humboldt, in letters published in the *San Francisco Bulletin*, May 24, 1860.

²²³ *San Francisco Bulletin*, Mar. 28, 1860.

²²⁴ A. J. Bledsoe, *Indian Wars of the Northwest* (San Francisco, Bacon, 1885), gives the names of several other men who were wounded during engagements with Indians in the campaign of the winter of 1858-1859. Because competent testimony in the U. S. Court of Claims in cases of Indian depredations has seriously called in question the authenticity of this work, very few data from it, other than a few dates, have been incorporated in this paper.

- 1858, June 3. Asa Jordan and John Mackey wounded (?) on Freshwater creek.
 1858, June 23. W. E. Ross wounded on the trail near Grouse Creek hill, ten miles east of Three Cabins.
 1858, July 16. Orin Stevens killed in "battle" on Grouse creek.
 1858, August 2. Chauncy Miller killed and Winslett wounded in "battle" at Three Creeks eight miles northeast of Bald mountain.
 1858, August. John Mann, while asleep, had his throat cut by his own squaw because he had killed her brother. In return he killed her.
 1858, September 14. Paul Boynton killed on Boynton Prairie.
 1859, May 10. J. C. Ellison killed in "battle" on Yager creek.
 1860, January. Hitchcock wounded in "battle" on the North fork of Yager creek.

As a matter of course a "punitive expedition" followed every "outbreak" of the Indians, but it was not until June, 1858, when Ross,²²⁵ a packer, was wounded on the trail at the head of Grouse creek, that we have a very extensive campaign. Though the Indians probably had a grudge against Ross only, as they had previously made an attempt on his life and on this occasion stood and watched the white party care for the wounded man without making any attack upon them, yet it proved a sufficient cause in the minds of the whites for a general attack upon all the Indians living on the Bald Hills, to which three companies of volunteers at once proceeded. One of these divisions was repulsed at the head of Grouse creek on July 16 with the loss of one man. The other divisions took up positions at laqua Buttes and on Redwood creek at Bair.²²⁶

It was a few months later, when Paul Boynton was killed within a short distance of his own home and apparently without cause that the state commissioned troops to the number of ninety men under the command of Adjutant-General W. C. Kibbe, Captain I. G. Messie, Lieutenant Prosser, and Lieutenant Winslett. These troops were kept in service on Redwood creek, upper Mad river, and in the Yager creek and Van Duzen river country from October 15, 1858, to March 31, 1859, by which time "above one hundred Indians had been killed, and three hundred and fifty taken prisoners."²²⁷ The difficulties of the campaign and the hardships of the Indians were increased by the unusual severity of the winter, there being three feet of snow in places on the hills for several months, while it was so cold that packer's mules are said to have frozen to death.²²⁸

²²⁵ San Francisco Bulletin, June 28, 1858.

²²⁶ *Ibid.*, July 26, 1858. It is presumed by the writer that Pardee's ranch, the camping place frequently mentioned in the newspapers, is the same as that owned later by Isaac Minor and now known as Bair.

²²⁷ California Assembly Journal, 10 sess., 1859, p. 699.

²²⁸ San Francisco Bulletin, Dec. 14, 1858, April 25, 1859.

After the Indians were "entirely starved out," those who were taken prisoners were sent to the Mendocino Coast reservation, where a government report dated November 4, 1858, says that there were already 722 Indians with a crop insufficient to feed more than 420 Indians for ten months.²²⁹ The result was that in less than a year most of the Indians from the Bald Hills were back in their old territory,²³⁰ very much embittered against the whites. Yet the marvel is that we can find no record of more than one man being killed and one slightly wounded in the region under consideration during the years 1859 and 1860.

As to the extent of depredations on stock, it was doubtless at first much overestimated, because in May, 1859, we have the statement of a local paper,²³¹ which has never been charged with unduly favoring the Indians, that "the number of stock killed will not be so great as was anticipated. The owners say that probably fifty head will cover all the losses" in the Yager creek country.

Among the Indians taken to Mendocino reservation in the spring of 1859, was a band gathered into an old house belonging to Isaac Minor²³² on Redwood creek under a false pretense that a council and settlement were desired. Here eighty-four young men were shut in, chained two and two to a rope, and rushed to the reservation along with their women and children and the older men. Here they were half starved for four or five months, when they returned and camped near Minor's place. Then, about January, 1860, depredations being reported twelve or fourteen miles above, a volunteer company led by Jim Brown went to punish the Indians. Stopping at Minor's to feed their horses, they found the well behaved Indians camped in his field and killed seven or eight non-combatants, while the young men escaped. These formed the nucleus of a band of fifty-one, which, finally driven to desperation, killed or drove out all the settlers on the Bald Hills in the spring and summer of 1861 and continued to

²²⁹ G. Bailey, spec. agent Dept. Interior, Report of Nov. 4, 1858, 35 Cong. 2 sess., serial no. 974, doc. 1, p. 653.

²³⁰ J. V. McDuffie, supt. Ind. Aff. N. Cal., reported Sept. 4, 1859, that there were not over five hundred Indians resident at Mendocino reservation, 36 Cong. 1 sess., serial no. 1033, doc. 46, p. 7. The San Francisco Bulletin of Mar. 13, 1860, says that 350 of the Indians taken from the Bald Hills to Mendocino the previous season had returned because they had nothing to eat.

²³¹ Humboldt Times, May 21, 1859, copied by San Francisco Bulletin, May 26, 1859.

²³² Isaac Minor in a manuscript in his own possession, which is a stenographic record of testimony before Commissioner H. L. Ford, Court of Claims, at Eureka, 1893; Indian Depredation no. 1,032 Isaac Minor, plaintiff, v. U. S. and Redwood and Hoopa tribes, defendants.

burn buildings and do all the mischief possible over an area forty miles square, finally burning Bates' hotel at Blue Lake, killing several persons there, and otherwise threatening the settlements at the head of Humboldt bay, until they were tracked to Little river. Here, on August 24, 1862, all but two were surprised and killed while bathing.

During the summer and fall of 1859, a small company of United States troops under Lieutenant Collins were stationed at Bair on Redwood creek and another under Captain Lovell near Yager creek. A few cattle being killed in spite of their presence, the citizens of Hydesville on February 4, 1860, held a mass meeting and organized a company of fifty-five under the command of Captain Seaman Wright.²³³ This company was composed in part of Eel river settlers and in part of a class of persons "having neither home nor kindred." They ranged the Yager hills for some weeks, killing every Indian they could find. Like numerous other volunteer companies in California, their desire was not merely to be of the greatest possible service to the cattle-owning citizens, but more especially to be of service to the politicians, thus hoping to secure for themselves a commission from the governor. They killed a considerable number of Indians, but only a fraction of the three thousand of Athapasean stock who were then supposed to live within the drainage area of Eel river. However, they did succeed in stirring up new enmity between the Indians and whites which lasted until the Indians were nearly exterminated.

Campaigns by volunteer companies, state troops, and federal troops continued for several years against the Bald Hills Indians. Prisoners were taken to the reservations and starved and abused until they returned to their native haunts, only to be chased off again to some reservation in a fresh campaign.

Properly speaking, there never was a state of war on the Bald Hills. There were on the one hand irresponsible whites—drunkards and gamblers looking for excitement, propertyless and with nothing to lose, but with a chance of getting rations for nothing—whom the better element could not control; on the other hand, there was a small class of bad Indians whom the great majority of friendly Indians could not restrain. T. M. Brown,²³⁴ sheriff of Klamath and Humboldt counties for about forty years, who knew the Indians

²³³ These figures and the date are taken from A. J. Bledsoe, *op. cit.*, p. 299.

²³⁴ T. M. Brown (sheriff of Klamath county 1861–1874 and after consolidation of counties, sheriff of Humboldt county 1879–1906), testimony before Court of Claims, case of Isaac Minor, etc. See footnote 232.

thoroughly and earned the universal respect of Indians and whites alike, testifies that the marauding Indian bands contained as low as four and as high as eighteen men. All of the manweemas or head men that he knew were friendly, except three in Hoopa valley and one on Redwood creek. The friendly chiefs seemed even more concerned in keeping the peace and stopping depredation than were the whites.

Over against the record of depredations on the part of the Indians, we have the report²³⁵ of one white man on Van Duzen river who boasted of having killed sixty infants with his own hatchet at the different slaughtering grounds. He had an Indian boy working for him whose family lived within half a mile of his place. Being angered because the boy occasionally visited his relatives, he went down one morning and slaughtered the family of about six persons, boy and all, and sent the bodies of the victims on a rude raft down the river, labeled with the name of an American who was known to be opposed to indiscriminate Indian killing.

One of the neighbors had had about his premises for the preceding two years an old Indian called Yo-keel-le-bah or Ukillaboy who acted as a faithful guardian to the ranch as well as being a reliable interpreter and aid to the white officials. About April 26, 1860, the old Indian, feeling perfectly secure, paid the vicious white man a friendly visit, and was immediately tied up and shot without any explanation.

This vicious white man was a leader and model of a certain class of settlers on Van Duzen and Eel rivers known as the "thugs."²³⁶ These thugs not only went about the country attacking Indian villages at early dawn and slaughtering the inhabitants of all ages and sexes, but they threatened and terrorized²³⁷ their more peaceable white neighbors. They had the sheriff,²³⁸ a certain influential newspaper, and a number of the members of the grand jury²³⁷ on their side, and became so bold that certain of their number, on drunken sprees if not at other times, threatened to "clean out" the small batch of federal soldiers who had been sent to Eel river in answer to a petition of the better class of citizens desiring protection for both themselves and the friendly Indians.

²³⁵ San Francisco Bulletin, Mar. 13, June 1, and June 4, 1860.

²³⁶ *Ibid.*, Mar. 28, June 1, 1860.

²³⁷ *Ibid.*, June 1, 1860.

²³⁸ *Ibid.*, Mar. 13, 30, 1860. Also Maj. G. J. Rains, commanding at Fort Humboldt, in a letter to Sheriff Van Ness warning "a certain faction favorable to the interests of the assassins in this county" of which the sheriff is charged with being the spokesman. Letter published in San Francisco Bulletin, May 24, 1860.

EARLY AGGRESSIONS AGAINST THE WIYOT

After the character of the whites as exhibited in their conduct toward Indians in general is noted, it will appear quite remarkable that only two men, Arthur Wignmore and Charles Hicks, are known to have lost their lives at the hands of the Wiyot Indians. The Wiyot are usually considered as possessing much less physical vigor and prowess than the Indians of Athapasean stock living in the mountains, and they offered no resistance to the encroachments of the whites. Whenever the presence of an Indian village was undesirable to the whites the Indians were required to move, so that in a few years the larger part of the Indians on Humboldt bay were concentrated on Gunther island at site 67, at the mouth of Elk river, site 77, and at the harbor entrance, site 112. But as the expulsion of the Indians from a particular place was usually accomplished at the hands of lumbermen and others of the rougher element among the whites, they seem to have showed no ill feeling toward the whites in general. In fact toward most of the whites the Wiyot seem to have had nothing but decidedly amicable relations. Such sentiments as they may have harbored toward the particular aggressors they feared to express.

Eel River Murders in 1852

One of the first clashes with the Eel river Wiyot occurred in the spring of 1852. As we have previously mentioned, the two lower Athapasean villages on Eel river had a few cases of intermarriage with the Wiyot. When a Wiyot, whose son, Charles Shakespere, is now living at Indianola, was killed by an irresponsible white man on the trail near where Loleta now stands, some of the Indian's relatives living near Scotia thought to settle the score by killing McDermitt and Merrill, who lived together in an isolated spot near the mouth of Van Duzen river. As soon as the bodies of the victims were discovered a few weeks later and the report reached Humboldt bay, a party was fitted out with the object of impressing upon the minds of the savages the sacredness of human life when that life happened to belong to a person of a "superior race." The following quotation taken from a letter of the Indian commissioner, Rediek McKee,²³⁹ April 5, 1852, to the governor of California, shows what happened:

²³⁹ R. McKee, Correspondence with Governor Bigler, Calif. Sen. Jour., 3 sess., appendix, p. 712, 1852. The same (with a misprint, Eel river instead of Elk river), is also found in reports to 33 Cong., *op. cit.*, p. 310. See footnote 181 of present paper.

It appears that, some time in February, two men living on the north side of Eel River, some fifteen or twenty miles from Humboldt [City], in a retired, out-of-the-way place, were murdered and their house robbed. As the river was unusually high, and canoes scarce, the fact did not become known to the settlers of the east side of the river for several weeks. It was then concluded, as a matter of course, that the Indians had killed them; and meetings were immediately held at the towns on the bay, and parties organized to hunt up and punish the guilty; but no sooner were these brave warriors clothed with authority to represent and defend the country, than they commenced an indiscriminate attack upon the poor, defenceless, and wholly unsuspecting Indian settlements on and about the bay, near Eureka and the mouth of Elk river, killing several; then proceeding out to Eel river, renewed the work of death, and finally succeeded in destroying the lives of fifteen or twenty naked and defenceless natives, without finding even one of those generally suspected of being most likely to be concerned in the murder. A week or two later, some three or four other Indians who *were suspected* of being concerned in the murder, (*if committed by Indians at all,*) were overtaken on Eel river, and summarily shot down. A gentleman from the bay informs me that these rash, cruel, blood-thirsty proceedings, were wholly disapproved by many of the best men in the country; but they could not arrest them, and were indeed almost afraid to let their disapprobation be known.

In reality there were only three persons concerned in the murder of the white men, a young Indian, his father, and an uncle, but the members of the expedition displayed no fine sense of discrimination by making an investigation and then punishing those responsible, neither did they take it for granted that the responsibility lay with the Indian village nearest to the home of McDermitt and Merrill. What they did was to consider all Indians equally guilty, and so they attacked the first villages that they came to, namely, site 77 at the mouth of Elk river and site az on Eel river. Here they killed many of the Indians who failed to escape to the bushes. Neither of these villages had the least thing to do with the murder of the settlers, and to save themselves from further trouble their inhabitants guided the whites, some time later, to the village near Scotia where at least the three guilty Indians were found and killed. There may have been more killed, but the Indian informant was not certain on this point.

"Squaw-men" on Eel River in 1851

As there were but very few white women in the mining counties during early years, hundreds if not thousands of white men throughout the state took Indian wives. These men are often given the opprobrious name of "squaw-men" and it is frequently asserted that the descendants of such unions inherit none of the virtues of either race but all of their vices. It does at times seem as if there were some foundation for such a belief, but it is probably true that the results

asserted are more apparent than real, since a great many unions of the two races have produced offspring worthy in every respect. On the other hand, when the father was without redeeming traits of character while the mother had been secured at the cost of the lives of her male relatives and held to a union to which she did not yield a hearty response, the offspring could hardly fail to inherit the predominating traits of their progenitors, intensified perhaps by the environment in which they were reared.

As a solution of the Indian problem in early days there were various theories. Some advocated subjection of the Indian to slavery, some, his removal beyond the limits of the state to the deserts of Nevada. Some believed in concentrating the Indians on reservations where they could be taught husbandry and the mechanical trades. Many advocated extermination, some amalgamation. Thus the *Sacramento Bee* in 1857 says:²⁴⁰ "Our idea" is "amalgamation. Persons who have been in the mountains, and seen as we have, hundreds of white men living with their Digger wives, will not be so much surprised at this declaration of opinion."

At Humboldt bay there was considerable intermarriage of the two races, and on the whole the unions appear to have been quite satisfactory, since the Wiyot women have generally made the best of housekeepers, keeping everything faultlessly clean. The writer can see no reason why such intermarriages should be looked upon with disfavor, provided the unions are mutually satisfactory and permanent. Unfortunately, in pioneer days such unions were too frequently neither mutual nor permanent, and this often led to grave consequences.

Thus, in September, 1854, at the mouth of Eel river,²⁴¹ site Aq, there was an Indian called Sherman George who had two wives. A white man by the name of Arthur Wigmore wanted one of these women, and threatened to harm George unless he left the district. George's father was afraid and so moved about two miles off to East-lake slough. This move of the Indians then furnished a good basis for a trumped-up charge of stealing. Wigmore attempted to "arrest" George, but the latter avoided being caught. Next day Wigmore came again for a rope left behind the previous day and intended to be used in securing George. He was in a very surly state of mind at

²⁴⁰ *Sacramento Bee*, copied by *San Francisco Bulletin*, Apr. 9, 1857.

²⁴¹ The date is taken from A. J. Bledsoe, *op. cit.* (see footnote 224 of present paper), pp. 179-181. The details, as given by Indian informants, differ materially from the accounts chronicled in the white man's history.

being frustrated in his designs and said to George's father, "You —— ——, give me the rope." He attempted at the same time to shoot, but George held the gun, whereupon he drew his pistol and shot George's father in the head. The bullet, however, did not kill, since it failed to pierce the skull. Then George disabled the white man, while another Indian finished the job by knocking him on the head, thereby taking revenge for a brother who had previously been killed. Then all the Indians were afraid and took to the brush.

At this time Dandy Bill, his five brothers, and a sister were living at site 92 and digging potatoes for a white man on Table Bluff. When Dandy Bill came home from his work, his mother was crying. The Wiyot had learned from experience what to expect in a case like this. Having finished digging a boat-load of potatoes Dandy Bill with his father and an uncle went to site 17 in time to warn the Indians there to be on their guard against a party of white men. This party was already crossing the bay to Samoa and was suspected of designing a surprise attack on the Indians living on the North Spit.

Shortly after this, Dandy Bill saw Jess Dungan who was married to an Indian woman and had a salmon cannery and ferry on Eel river near site AV. Dungan advised the Indians to avert more serious trouble by capturing those who had killed Wigmore. Dandy Bill, Doctor, and a few other Wiyot, together with seven Mattole Indians and Mattole-Wiyot half breeds, went after George and his friends, who had fled down the coast to site 114. Doctor killed and brought to the whites the head of the Indian who had knocked in the skull of Wigmore, but the whites wanted also a certain Indian who was known as a thief. As some of the Indians did not like the thief, he too was secured, and together with George was turned over to the military officers. After two months of jail at Fort Humboldt, a disagreement arose between the officer in command and the civil authority; hence, the two Indians were turned loose.

Murder of Charles Hicks in 1856

The next trouble in point of time was in October, 1856. Charles Hicks, according to the newspapers,²⁴² was hunting on Bear river, and was attacked by five or six Indians and shot. Several weeks later when he died from the effects of his wound, a party of whites attacked an Indian band on Eel river near Grizzly Bluff and killed

²⁴² San Francisco Bulletin, Nov. 4, 29, 1856. Cf. also A. J. Bledsoe, *op. cit.*, p. 210.

seven. The shooting of Hicks seems to have occurred beyond the limits of Wiyot territory, but Dandy Bill, though claiming to be unacquainted with the particulars, thought that some Wiyot were among the band that killed the white man. Those guilty tried to hide at kadjo'h-dätigërdoli, the point of Grizzly Bluff reaching down toward the mouth of Van Duzen river.

Consequences of Theft by Indians

The Wiyot Indians are not known to have ever killed a single head of cattle and they seldom stole anything of much value, though doubtless on occasion they pilfered. One Indian informant told his boyhood experiences in stealing. One day he entered a white man's cabin by the chimney and took some fish-hooks. Some of these he gave away to his boy friends, and in this way his parents found out that he had been stealing. He was made to understand that it was a very serious offense. He must go to the white man and confess, even if he paid the penalty of death for his crime. His father and uncle took him into the terrible presence of the white man, who blustered considerably when he found out who had taken the hooks—possibly for effect, since he ended by giving back to the boy some of the articles he had returned. The man put one hand beneath the boy's fallen chin, made him look straight into his eye, then laid an ice-cold finger on his throbbing forehead, and said: "If I ever catch you stealing again I will put a bullet right through there." The lesson was enough. Never again through a long life has this Indian been tempted to steal again.

In May, 1858, a theft occurred on Eel river which was more serious in its consequences to the Indians. Robertson Jack, a bad Indian, stole a Mr. Kady's gun, hiding it and not advising even his relatives that he had it. Kady was very angry about his loss for two or three days. Then, when one day Jack brought home ten rabbits, his uncle suspected, watched him, and discovered the hiding place. Dandy Bill and his uncle started to take the gun back to its owner, but, fearing trouble, left it with Dungan. Kady was satisfied when he got his gun, but certain other white men desired to punish the Indians and attacked the village, site AX, at daybreak one morning, killing Dandy Bill's uncle, the uncle's wife, and a baby, and wounding another woman so that she died later. Dandy Bill's father buried his brother at site 104, while Dandy Bill went to Fort Humboldt and carried legal papers back and forth between the judge and the sheriff, who subse-

quently arrested three white men, C. A. Sherman, William McDonald, and a man named Baker.

At this time there was a Mr. Knight, a lumberman, living on Freshwater creek with a Wiyot woman. A Redwood Creek Indian, shooting at him and missing him, he went to some lumbermen friends of the same disposition as himself and with them made up a story to get an excuse for killing certain Indians whom they disliked. Captain Jim and San Francisco John were accused of having done the shooting, and a very ragged hole in the hat of Knight was, in the minds of the predetermined lumbermen, sufficient proof of the guilt of these Indians. Captain Jim's home was on Gunther island, but he was living at the time at site 58, drying fish.²⁴³ Knight's squaw cried and said that her people had nothing to do with the shooting, but that it was a Redwood Indian. However, the whites would not listen to her pleading but attacked site 58. They killed Nicodemus, wounded Billy in the leg, and frightfully crippled San Francisco John with three or four bullets which broke his arm and jaw and pierced his side.

The wounded Indians fled for safety to site 31, while the soldiers took Dandy Bill, Peter, Henry, Ben, Joe, and Doctor to jail as hostages and sweated them for a confession of their knowledge concerning Captain Jim's shooting at Knight. Six logging men met Dandy Bill in the courthouse and urged him to persuade Captain Jim and San Francisco John to come to the courthouse past a certain clump of bushes at a certain hour. The two Indians, in a very weak condition, came of their own accord, but to avoid the bushes and the logging men they marched to the court house between soldiers.

A few additional details, learned from newspapers,²⁴⁴ are to the effect that the attack on the Eel river village was made by eight or ten men on the morning of May 29, 1858. No mention is made of Kady or of Knight, but an assertion, apparently false, is made that "two innocent" logging men, Asa Jordan and John Mackey, were wounded with buckshot about four miles above Eureka on June 3, the very afternoon of the day that Sherman, McDonald, and Baker, "notorious" squaw-men, were arrested on Eel river. Though there were eight or ten men concerned in the attack on the Eel river village only these three, who were subsequently held to bail in the sum of

²⁴³ See footnote 53.

²⁴⁴ San Francisco Bulletin, June 22, 1858, copying Humboldt Times of June 12. A pioneer's account has already been given on page 269. Cf. also A. J. Bledsoe, *op. cit.*, p. 281.

\$3000 each on a charge of murder, could be found by the sheriff. It was considered that the trouble on Freshwater creek was a result of the Eel river affair, but the writer is of the opinion that the two cases were entirely independent, although happening at about the same time. Afterwards, during the trial, the lumbermen on Freshwater, the "peaceable and industrious men who attend to their own business and do not meddle with the Indians," had an understanding with the "notorious" degenerates of Eel river. Quite a number of the more prominent Indians were held in jail for a time, but as nothing could be proved against them they were dismissed. Since it would have been a flagrant miscarriage of justice for a white man's court, supported by white man's taxes, to convict a white man of any crime against an Indian, all the murderers, both of Eel river and of Freshwater creek were set at liberty.

MASSACRES BY THE WHITES IN 1860

We have now mentioned every case of trouble between the whites and the Wiyot, occurring previous to 1860, of which we are able to learn. It remains to speak of the climactic act of barbarity and inhumanity on the part of a half dozen vicious whites. It seems almost beyond belief that men could do such a deed as was perpetrated by them. Indeed there are no men who could commit such crimes unless they had long been trained to deeds of violence. But such training had not been neglected.

From the very earliest times of settlement in California and Oregon, Indians had been killed for the most trivial of causes. All the newspapers during the years previous to 1860 teemed with the words *annihilation* and *extermination*.²⁴⁵ True, the Indians had their friends among the newspapers as well as among individual whites. These strove as best they could to protect the Indian and give him justice at a time when life was none too secure for anyone. On the other hand there were newspapers that in a sinister manner, if not openly, advocated extermination. These poisoned public opinion by cultivating race prejudice and charging every possible crime against Indians. Thus shielded and encouraged, the rougher element among the whites gradually went from bad to worse.

²⁴⁵ As early as October, 1852, the superintendent of Indian Affairs in California recommended to the government the quartering of troops on the reservations for the protection of the Indians against lawless whites. Gen. E. A. Hitchcock, commander of the Department of the Pacific, endorsed the plan as "perhaps the only one calculated to prevent the extermination of the Indians." See 33 Cong. spec. sess., serial no. 688, doc. 4, p. 377.

At Humboldt bay the troubles on the Bald Hills several succeeding seasons had prepared the way for what occurred during the night preceeding February 26, 1860. At site 67 on Gunther island an Indian festival had been in progress for a whole week, ending in a dance on a Saturday night. While the dance was in progress, white visitors came over from Eureka, and among them spies who learned the exact situation and made their plans. At the close of the festival, those of the Indians who lived at the south end of the bay went home; but because of a strong wind those living to the north stayed for the night with the inhabitants of the village, and soon all were fast asleep after their strenuous days and nights of harmless excitement.

About four o'clock Sunday morning five or six men came to the island armed with hatchets. One of the Indian women, the wife of a white man named Hatteway, could not sleep, and so had arisen and, going down to the beach, saw the men coming. Knowing that they came for no good, she attempted to arouse the drowsy sleepers, but her efforts were largely in vain or too late. A few, mostly men, escaped to the bushes, while the others were caught in their houses like rats in a trap. Mercilessly the hatchet descended on all alike, old and young, women, children, and infants. Their skulls were cleft, their spines severed, their bodies thrust with bowie-knives. Among the children and infants killed were a few who had white fathers.²⁴⁶ The work of destruction was finished in a few minutes, and while the dead and dying lay strewn over the ground, the fire from one of the burning cabins lit up the ghastly scene.

The murderers departed, while in a short time sympathetic whites, including one doctor, arrived from Eureka to witness the dreadful sight and do what little they could to allay the sufferings of those still living. One of these visitors gives a description of the slaughter which, though perhaps not to be taken as literally exact in every particular, appears to the writer to have avoided exaggeration as much as any of the various accounts published in the newspapers of the

²⁴⁶ San Francisco Bulletin, Mar. 13, 1860. A correspondent often addressing his letters from "Murderville," signing as "Anti-Thug," and sometimes given to exaggeration in speaking of the friendly relations existing between the Indians and the whites, says that there were "not less than ten or fifteen half-breed infants among the squaws." Two constructions might be placed on this passage, one, that ten or fifteen half-breed children were killed, which would be quite impossible; the other, that the total number of offspring resulting from the inter-marriage of the two races amounted to ten or fifteen. This latter construction might be readily accepted as the truth. The same writer also states that "at Eagle Prairie, a few nights since, they slew several half-breed squaws, who were crying for mercy in plain English." In this case, owing to very recent settlement, the "squaws" could scarcely have exceeded the age of eight years, whereas the word is usually understood to mean an adult female.

time and, in general, to have adhered quite closely to the real facts. The description follows:²⁴⁷

Amidst the wailing of mutilated infants, the cries of agony of children, the shrieks and groans of mothers in death, the savage blows are given, cutting through bone and brain. The cries for mercy are met by joke and libidinous remark, while the bloody ax descends with un pitying stroke, again and again, doing its work of death, the hatchet and knife finishing what the ax left undone. A few escaped—a child under the body of its dead mother, a young woman wounded, and another who hid in the bushes....

Here was a mother fatally wounded hugging the mutilated carcass of her dying infant to her bosom; there, a poor child of two years old, with its ear and scalp tore from the side of its little head. Here a father frantic with grief over the bloody corpses of his four little children and wife; there, a brother and sister bitterly weeping, and trying to soothe with cold water the pallid face of a dying relative. Here, an aged female still living and sitting up, though covered with ghastly wounds, and dyed in her own blood; there, a living infant by its dead mother, desirous of drawing some nourishment from a source that had ceased to flow.

The wounded, dead and dying were found all around, and in every lodge the skulls and frames of women and children cleft with axes and hatchets, and stabbed with knives, and the brains of an infant oozing from its broken head to the ground. But five men were killed on Indian [Gunter] Island, and but few elsewhere.... So, where is the good to come from these murders of 55 on Indian Island, 58 on South Beach, 40 on South Fork of Eel river previously, and 35 subsequently on Eagle Prairie—188 lives of human beings in all?

If not a great mistake current, Capt. Wright's Company of Volunteers have been acting not only without State authority, but in defiance thereof, and the perpetration of the sanguinary deeds were done by a few, the many thereof looking upon such deeds with horror. The civil authorities here are paralyzed or divided. Our Sheriff says, "Served them right!" and the tone of a newspaper called *Humboldt Times*, advocates such principles.

Nobody ever knew with any exactness the precise number killed on the island. All the survivors living to the north quickly placed their dead and dying in canoes and started for home before the visitors from Eureka arrived. The first visitors counted thirty-six dead bodies,²⁴⁸ mostly women and children, in and near the several houses, while a number of others died within a few days. One or two, though so badly cut up with hatchets as to be horribly disfigured for life, recovered. One assertion is that the total number killed on the island was sixty or seventy, of whom fifty or sixty were women and children.

Some accounts say that of about thirty from the mouth of Mad river sleeping on the island, all but a few were killed. The inhabitants of site 7 escaped, as previously stated, owing to the fact that because of an unsettled quarrel with Captain Jim they did not attend the

²⁴⁷ San Francisco Bulletin, Mar. 13, 1860, correspondent signing as "Eye-Witness."

²⁴⁸ These figures are from a witness, the editor of the *Northern Californian*, published at Arcata, copied by San Francisco Bulletin, March 13, 1860.

dance. Jim Brock said that about fifty from Blue Lake attended the dance of whom many were killed. Some of the Indians living near the bend of Mad river came to Arcata by way of Daniels slough and were carried home by the whites in wagons. Accounts say that these numbered about forty dead, mostly women and children, and ten or fifteen living, of whom several died later.

Hatteway's squaw said that the number of white men engaged in the crime was only six or seven. It was never publicly known who they were, since none were brought to trial. A considerable number were suspected of being none too good to commit the deed, but as they were shielded by persons of position and authority, no one dared openly to accuse them. The most that was ever done to promote justice was the writing of numerous anonymous²⁴⁹ letters to the San Francisco newspapers. From these letters it appears that some of the murderers at least were from the Eel river region and were members of Seaman Wright's Company of Volunteers, though it would be unwarranted to say that the company as such had any previous knowledge of the affair. The assertion has been made that the leader of this murderous band was a man by the name of "L——," a man who had a cattle ranch on Larrabee creek, and whose character has been described on page 322.

On the night of the attack it appears that men rode through from Eel river to the south end of the bay, hitched their horses, took possession of Captain Bulme's boat anchored near Humboldt Point, crossed to site 112, killed most of the Indians there, and then proceeded up the bay to Gunther island. The day after the massacre, the leader of the band is said to have boasted that he himself during the night had killed thirty women and children with his hatchet.

Some of the more extravagant assertions are to the effect that Indians were killed the same night at other places on Humboldt bay besides those mentioned as well as on Eel river, and throughout the county; that the total number killed was two hundred and fifty or more; and that about forty whites were engaged at the different places. These accounts appear to the writer as unworthy of credence. The facts as they have been presented are bad enough, without attempting to make them appear worse.

²⁴⁹ From one to half a dozen letters were written to the San Francisco Bulletin by each of the persons making the following signatures: J. A. Lord, J. R. D., Chas. Rossiter, Sheriff Van Ness, Eye-Witness, Anti-Thug, Citizen, Justice, S. V. Conner, Exodus, and Maj. G. J. Rains. These letters appeared in the following issues: Feb. 28; Mar. 2, 13, 28, 30; Apr. 11, 23; May 11, 24; June 1, 18, 1860. Additional information was obtained by the writer from living pioneers and from Indians.

As to the massacre at site 112, Dandy Bill gave a list of the number killed at each of the eleven houses, as well as a list of those escaping. Of those killed there were: 1 old man, 7 middle-aged men, 3 old women (one of whom was blind), 11 middle-aged women, 6 boys, 3 girls, 4 younger children, and 1 baby, making a total of at least 36. For some of the families Dandy Bill was not certain of the number of the younger children, so that the total might be a little more than 36. Only 11 or 12 men and 4 women escaped, and of these 1 man and 3 women lived in a house which stood apart from the others and in consequence was not attacked at all. One of those escaping fled across the bay to give warning to the village at the mouth of Elk river, but was overtaken by the whites and killed. However, it seems either that the village got warning or that the whites became alarmed. At any rate, they hazarded no attack, so some accounts say, while others say this village was also attacked.

As to the cause of all this slaughter, the local papers attempted to say something at first as an excuse for the outrage. However everything that was said was quickly disproved to the satisfaction of nearly everyone. About a week before the massacre an Indian supposed to be Sherman George of site 112 was said to have been shot at and wounded in the back while committing thefts on the Bald Hills. Hank Larrabee, a most vicious white man having a cattle ranch on Larrabee creek, came to the bay to claim his victim. The Indian was found at the place of a white man living on Elk river, and by taking off his clothing he proved that he was not the guilty one, as he had never been wounded. About this time several bad characters from among the whites living on the hills are said to have met at a house just east of Red Bluff, it was presumed for the purpose of making plans.

One of the extravagant assertions made after the massacre was that of 7000 to 8000 cattle on the Bald Hills one-eighth had been killed during the preceding year. Indians were said to have been seen daily going back and forth from the bay to the hills conveying large quantities of beef to their homes near the white settlements. These Indians sometimes constituted parties of from ten to twenty, it was said, and dried beef was reported as found in their rancherias on Gunther island, at site 112, and on Eel river. However, this dried meat was later found to be dried seal meat, and it was declared that so far as the Indians on Gunther island were concerned: "neither man, woman nor child would touch beef. It is well known to families in Eureka

that they have a superstitious antipathy to eating that kind of food, and are known to have thrown away meat given to them."

Another charge was that the coast Indians furnished arms and ammunition to the mountain tribes and gave them an asylum when they were hard pressed by the volunteers. This supposition has been answered by the established fact that there never were friendly relations between these two groups of Indians. Besides, it was finally ascertained that the depredations were committed by Indians having only bows and arrows, as the last cow shot with a gun was killed seven months before the massacre. Thus the Wiyot have been completely exonerated in every way. One of the strongest testimonials in their favor is a letter of Major G. J. Rains, commander at Fort Humboldt. This letter published in the *San Francisco Bulletin*, May 24, 1860, is as follows:

I can find no excuse whatever for the horrid massacres on this Bay and the removal of Indians thereof from the county, whom I have considered as safeguards to the citizens of this vicinity and their property, by acting as spies upon the mountain tribes, to destroy small numbers and betray larger ones who might come for spoilation or murder.

An example of how the Wiyot acted as spies on the mountain tribes is shown when Arcata got an alarm²⁵⁰ on the night of October 3, 1858. The Mad river Wiyot thought that they heard sounds of a hostile band in the brush, and reported that the Redwood Indians were coming to burn the town and kill everybody. The American women and children were taken to a fireproof building for safety, while the men followed the Indian guides out to Mad river, where they thought that they had heard the noise. It all proved a false alarm, as there was no depredating band of mountain Indians: yet it shows the alertness of the Wiyot in sensing danger and reporting it to the whites.

TREATMENT BY THE WHITES SINCE 1860

Immediately after the massacre, all of the surviving Indians who had lived on the bay sought an asylum at Fort Humboldt near Bucksport, and in April were taken to Klamath reservation along with their fellow tribesmen from Mad and Eel rivers. We have this account of the removal:²⁵¹

The last act in the tragic drama of murder and oppression, which began on Humboldt Bay on the 26th of February last, has just been performed. The

²⁵⁰ *San Francisco Bulletin*, Oct. 12, 1858.

²⁵¹ *Ibid.*, May 11, 1860.

friendly aborigines, in number 450, have been removed from Humboldt county. Those on Mad river, about 120 in number, were first forcibly expelled from their residences, herded like cattle, and all, under the fear of death, had to leave their homes, as dear to them as ours are to us. These Indians...are measurably civilized. Some of them speak our language, they have mingled with the whites, and were accustomed to aid in their domestic concerns....It would have moved a heart of stone, to have seen these poor creatures grieving, burning up their boats and houses, and then driven from their homes—their "sacred hearths"—from the graves of their murdered relatives, from the land of their forefathers—a land still their own, for it has never been purchased, nor have they received one iota as *quid pro quo* for all this country.

It becomes us now to correct false impressions which have gone abroad (mainly propagated by a mendacious print here—probably pandering for votes,) by giving a statement easily verified by any disinterested person, proving that the objections to this population were without foundation. In many cases these Indians were useful. They were divers and hands at the fisheries; they were harvesters, aiding the whites in getting in their grain, and bringing them berries, fish and clams; they were packers and guides to mountain trains; while their wives were of much service to the ladies of Eureka on their wash days and in other household duties. ... They killed nobody—neither women, children nor cattle; they troubled nobody, and nobody's property; they never were drunk nor drank liquor, and really were the most inoffensive and harmless Indians, perhaps, the world ever saw....

At Klamath reservation the Wiyot found an uncongenial home and in three or four months larger or smaller parties began to drift back to their old homes,²⁵² where they found on the one hand a few sympathetic whites desirous of protecting them, and on the other hand a considerable number equally desirous of embracing every opportunity to murder them. One party found safety for a time by camping in Bucksport near the house of a white man of doubtful friendliness. This man, though pretending friendship, planned to kill them all, or at least deliver them into the hands of others to be killed, but his wife learned of the plans and revealed them to the Indians, who escaped by sleeping at night in the bushes. One of this party of Wiyot, Ned by name, was later killed when, driven by hunger, he sought to gather a few clams. His murderer boasted that when five shots failed to kill the Indian, he knocked him on the head.

Another Indian, Ben by name, was working for a white man living on the North Spit, and was dealt with treacherously, it would appear, by being sent on an errand to Gunther island, where two men met and killed him. Frequently other Indians, becoming suspicious, were impelled to seek safety in hiding. From time to time these refugees were gathered up and taken to some reservation, first to Klamath reservation, then to Smith river, and finally to Hoopa.

²⁵² *Ibid.*, Aug. 4, 27, Oct. 26, 1860; Jan. 17, 1861.

In the early part of January, 1862, every acre of arable land on Klamath reservation was swept by a flood such as "the oldest inhabitant among the Indians had never before witnessed." Every Indian village, thirty government buildings (all buildings except one barn), all the harvested crops and stores, all fencing, farming tools, hogs, fowls, and part of the cattle, were swept into the river. This necessitated the removal of the Indians to a new location, Smith river. The following quotations taken from several reports of the Superintendent of Indian Affairs, Northern District of California, hint at the miserable condition of the Wiyot, as well as the neighboring mountain tribes, on the various reservations. The dates given are the dates on which the reports were forwarded to the Commissioner of Indian Affairs.

February 14, 1862.²⁵³ After having accomplished the negotiation [for the purchase of Smith river farms] I at once removed one of the tribes, numbering between four and five hundred, and called the Humboldt [bay] Indians, from Klamath. These were so anxious to be removed that they actually travelled through snow, rain, and mud barefooted, over a distance of forty miles, to where they expected to find something to eat. On the journey two of the squaws brought forth an heir, travelling on the next morning, with the new-comers on their backs, as though nothing of the kind had happened.

August 18, 1862.²⁵⁴ I am now about to remove some 600 or 700 Indians from Fort Humboldt to said valley [Smith river]. These have been mostly collected by troops under Colonel Leppit from the mountains, in Humboldt county, on the Eel and Mad rivers, and are akin to many of those now at Smith River valley; more will be collected and removed accordingly. How I am to provide shelter, food, and clothing for so many Indians... I cannot divine, except it be by a miracle. The poor creatures must suffer the ensuing winter, for the credit of the government is so impaired I will not be able to procure further supplies.... The Indians now to be removed are destitute of clothing entirely... and we are nearly twenty thousand dollars in debt, and not one dollar yet received for 1862.

October 10, 1862.²⁵⁵ Having very recently removed 840 additional Indians from Fort Humboldt to said valley, there are now over 2,000 in the aggregate already upon this proposed reservation, and several hundred more collecting at Fort Humboldt, who must also be removed to the same locality at an early day.

July 18, 1863.²⁵⁶ The unsettled condition of three-fourths or more of the Indians, who have been compelled to lie on the cold, damp ground ever since their removal from Klamath and Humboldt counties, has caused disease, and death in many instances,... I have ascertained that only 130 out of 840 Indians which were removed to Smith River reservation from Humboldt bay last September ever returned, and that little band, [Lassik tribe of Larrabee creek region] with their chief, Las-ae, left the first night after they landed in the valley. Las-ae, I hear, has since been killed.

²⁵³ 37 Cong. 3 sess., serial no. 1157, doc. 1, pp. 460, 461.

²⁵⁴ *Ibid.*, p. 465.

²⁵⁵ *Ibid.*, p. 453.

²⁵⁶ 38 Cong. 1 sess., serial no. 1182, doc. 1, p. 212.

I am now constructing a hospital at Smith River valley, and as soon as it is finished, will make an effort, by the close attention of the physician, to banish the most loathsome of diseases from among the Indians; but while the more degraded men of the white race are permitted to live in reach of, and come in contact with them, I almost despair of success. The Indians on all the reservations continue to labor faithfully. . . . They are very destitute of clothing, only an occasional Indian wearing a whole garment, and not a whole blanket could be found among 100 Indians; and their constant inquiry was: "When *Captain Lincoln*, *big chief*, send Indians plenty blankets?"

September 1, 1864.²⁵⁷ This section of the country [Klamath and Humboldt counties] had been cursed for years with a destructive Indian war, that had well-nigh ruined its business interests, and promised to end only in the extermination of the Indians. A vigorous campaign, accompanied by great loss of life, had been waged during the past year, and the Indians, though severely dealt with, were still unsubdued, but, through the efforts of the district commander, had ceased hostilities and come into Hoopa valley, the home of most of the warriors, where with their arms still in their possession, they were waiting some action on the part of the government toward establishing a treaty. . . . I at once proceeded to Hoopa valley to treat with the Indians. . . . resulting in the establishment of a reservation in Hoopa valley, and the surrender of their arms by the Indians.

After being repeatedly taken to the several reservations and subjected to such uncongenial conditions as too generally prevailed on reservations, the diminishing survivors of the Wiyot nation were finally permitted to live within the limits of their original territory, where they are all to be found at the present time.

ARCHAEOLOGY OF SITE 67

ENVIRONMENT OF THE MOUND

The part of the bay north of Eureka, that is, all the part which is shown on the map, plate 2, contains, as nearly as could be ascertained by a careful measurement of the hydrographic map published in 1912 by the U. S. Coast and Geodetic Survey, about 14.7 square miles of water at high tide, over half of which, or about 7.8 square miles, is mud flats at the mean of the lower low waters. Gunther island, something over a mile in length, situated just opposite Eureka, is favorably located for reaching any part of the northern end of the bay in a canoe, no shore being more than five miles distant.

The whole island, with the exception of two mounds, was formerly, before being diked in, covered with marsh plants and flooded at the time of extremely high tides. Three lumber mills were built on the southern part of the island and operated at different times between

²⁵⁷ 38 Cong. 2 sess., serial no. 1220, doc. 1, pp. 260, 261.

1866 and 1896; and in consequence ten artesian wells were bored, besides one on each of the mounds, or twelve in all. These ranged in depth from 85 to 248 feet. Robert Gunther, not being able to lay his hands upon papers in his possession, gave certain statements regarding the depths of these wells from memory. These statements are doubtless substantially correct, since he had special facilities for observation while serving as engineer in the mills. Following is his description.

Every one of the wells furnished water tasting differently or acting differently in the boilers. No. 1 was 85 feet deep and physicked everybody who drank from it. No. 3 was 248 feet deep, had an abundance of water, but in time too fast pumping sucked sand to the top, so that it had to be abandoned. No. 4 was 165 feet deep. The water contained carbonic acid and flowed eight feet higher than the marsh level. No. 5 was 220 feet deep, nos. 6 and 7, 168 feet. No. 11, situated on site 68, was 171 feet deep. The marsh material here had a depth of two feet, beneath which there were twenty or thirty feet of mixed sand and clay, followed by quicksand. The water rises in this well to a point four feet above marsh level. No. 12 at site 67 was bored to a depth of 168 feet when some obstacle stopped further progress of the drill. At a depth of 100 feet a streak of exceptionally tough blue clay was encountered. The water in this well does not overflow, but has to be raised with a force pump.

For the purpose of locating the perimeter of the mound which constitutes site 67, as well as to ascertain the character of the substratum, the writer dug eleven holes, some of them to a depth of four feet below the marsh level. For a depth of two to three feet beneath the surface of the marsh there was a dark colored sand containing small black peat-like streaks, the remains of decayed marsh vegetation. Beneath this layer there was a stratum, six to twelve inches thick, composed of a very sticky bluish clay mixed with a little sand. As soon as this layer had been penetrated, water bubbled up which was perfectly fresh to the taste. In the holes farthest from the shore, the water rose to within eighteen to twenty-four inches from the marsh surface. Beneath the stratum of clay there was a light colored sand, a sort of quicksand in one case, into which the shovel could be punched to a depth of a foot and a half. The investigations indicate that there has been no marked change in the land level within the most recent geological period.

The inhabitants of the mound could have obtained all the water needed for cooking and drinking, by digging a hole into the marsh until the stratum of clay had been penetrated. If their well were flooded at high tide, it was only necessary to bail out the salt water, and then from beneath would come up fresh water.

SIZE AND SHAPE OF THE MOUND

Site 67 is an irregularly pear-shaped mound 600 feet long, 400 feet wide, and 14 feet high (see plan, pl. 11), situated on the marsh at the northeast extremity of Gunther island. There is no evidence that any part of the mound reaches below the present level of the marsh except along the beach on the eastern and northeastern sides. Here the shell has been washed down by the tides to a level lower than that of the marsh surface. Storms from the northeast occurring at the time of high tides have formed several shell bars, as indicated on the plan. Robert Gunther reports that a considerable strip on the east side of the mound has been washed away by storms since 1860. One of the bars has formed since the dike was built, but the volume of shell in this is rather trifling. The larger of the projections from the mound is 31½ feet in depth at its center, is composed largely of shell with scarcely any surface soil, and may have originated as a separate deposit, the two becoming connected as they grew in size. This belief is strengthened by the fact that there is near-by a deposit fifty or more feet in diameter wholly unconnected with the larger mound. The smaller deposit is shown in the foreground in plate 9, figure 1, while the larger mound appears in the distance.

The major portion of the mound is owned by Robert Gunther, but a small parcel in other hands is fenced in as a chicken ranch. One corner of this latter parcel is taken as the zero point or point of intersection for the base lines A-B and C-D as marked upon the accompanying plan. Every position is located with reference to these base lines. Thus the trench which was dug lies between 95 and 100 feet northwest of line C-D and between 100 and 215 feet northeast of line A-B. In the plan of the mound the perimeter is drawn from measurement, but the five and ten foot contours are only approximate.

COMPOSITION OF THE MOUND

Layers of Stratification

Plate 12, figure 1, shows the vertical cross-section of the mound in the line E-F, while figure 2 shows on a larger scale the vertical cross-section in that part of line E-F which forms the southeastern wall of the trench. Stratification was observed to some extent during excavation, but no effort was made to keep the artifacts of each layer

separate. In fact, the layers were so indistinct that it would have been impossible. However, after the excavation had been completed, the lines of stratification were easily seen on the wall of the trench. In places a depth of $8\frac{2}{3}$ feet was reached, but there were never over five layers in any one vertical section, while for the whole length of the trench eighteen layers were noted.

Samples of mound material from some of the different layers were brought to the museum and analyzed to determine the percentage of each constituent. The analysis was made by passing the material through a series of sieves and then separating the charcoal from all except the very finest sifting by running water. The several grades of siftings were dried over a fire until they had less weight than before they were placed in the water, and then picked over by hand to separate the shell, bird bones, fish remains, and other constituents.

In the analyzing of nine samples with a total weight of 9490 grams (20.92 pounds), three sieves, having respectively 8, 16, and 25 meshes to the inch, were used. These sieves separated the mound material into four grades according to the size of the constituents. The grades have been designated in table 2 as coarse, medium, fine, and finest. The coarse grade, that is the material caught on a sieve having eight meshes to the inch, amounts to 1791.57 grams or 18.88% of the total material comprising the nine samples. This grade consisted chiefly of very coarse shell with a small amount of bird bones and an occasional pebble or fish vertebra.

The medium sized grade, that is the material passing through a sieve of eight meshes but caught on one of sixteen meshes to the inch, amounted to 205.12 grams or 2.16% of the whole and was about three-quarters shell, the remainder being mainly fish bones and charcoal.

The fine grade, that is the material passing through a sieve of sixteen meshes but caught on one of twenty-five meshes to the inch, amounted to 118.34 grams or 1.25% of the whole, and was three-quarters shell, the remainder being mainly charcoal. As sorting such fine material by hand proved too tedious in the case of layer III and layer VII, only a part was sorted, and with this as a basis for calculation the proportion of each constituent was estimated in the remainder. Even though there should be some error in this estimate of proportions, the general result would be but slightly affected.

The fourth and finest grade, that passing through a sieve of twenty-five meshes to the inch, amounted to 7374.97 grams or 77.71%

of the whole, and was mostly sand with a small but indeterminate amount of ash²⁵⁸ and charcoal.

In table 2 it will be observed that the nine samples analyzed have an average of 16.20% for the coarse grade, 1.79% of the medium grade, 1.25% for the fine grade, and 8.76% for the finest grade. These figures, which are the average for all the layers, would be more nearly the average for the whole mound than the figures given above, where a single sample, and that from a pocket not at all typical, constitutes over one-third of the total weight of the nine samples analyzed. Below will be given a description of the several layers of stratification noted in the excavation (see plate 12), together with the results of the analysis of the various samples taken from these layers. Table 3 also shows in condensed form the results obtained by the analysis of the various samples.

I. The surface layer, with a depth varying from six inches on the knolls to 2½ feet in the old house pits, has a tendency to smooth out the irregularities of the former surface of the mound. It also attains a considerable thickness on the sloping sides of the mound. This is by far the most sharply defined of all the layers, being of a black sandy nature. The unusually dark color is doubtless due either to microscopic particles of charcoal or to decayed organic matter such as acorn shells. A sample of 308 grams of mound material obtained from this layer at a depth of one foot gave an analysis of 7.88% mollusk shell, .20% fish remains, .23% bird bones, .54% charcoal, .23% rock or gravel, and 90.91% residue passing through the finest sieve. This residue, as was also the case in all the succeeding layers, was mainly sand with a small amount of ash and finer charcoal.

II. Alternate streaks of coarsely broken shell and light colored sand several inches in thickness. One picked sample of nearly pure sand of a gray color obtained at a depth of two feet and weighing 1216 grams was found to consist of .12% crab shell, .41% mollusk shell, .06% fish remains, .03% bird bones, .07% charcoal, .07% rock, .2% clay, and 99.03% sand, etc.

III. Coarsely broken shell was most noticeable, but there was considerable sand. A small pocket at the depth of two feet, not at all typical of the layer as a whole, contained an unusually large amount of bird bones. An analysis of 3304 grams showed .03% crab shell, .01% barnacle, 16.06% other shell, .58% fish remains, 9.75% bird bones, .26% charcoal, .55% rock, .07% clay, and 72.68% sand, etc.

IV. Light colored sand.

²⁵⁸ E. W. Gifford of the museum staff has also made an analysis of seven samples from the Gunther island mound, site 67, the results of which are incorporated in a paper entitled *Composition of California Shellmounds*, present series, XII, 1-29, 1916. The difference in results between his analysis and that of the present writer lies mainly in the fact that he selected small samples having a weight of only 100 grams (3.53 ounces) each. All material passing through a sieve having twelve meshes to the inch was submitted to a chemist, who found an average of 3.93% ash in three samples obtained at depths of 6, 6.5, and 8 feet. It seems somewhat doubtful to the present writer whether larger samples could be found which would maintain so high a percentage. Three of the samples analyzed by Mr. Gifford showed no ash at all (see table 7).

V. Light brown sand. A sample from a depth of three feet weighing 366 grams showed an analysis of .054% mollusk shell, .9% charcoal, .172% rock, .16% clay, and 98.71% sand, etc.

Streaks of nearly pure sand a few inches in thickness were likely to be found in almost any layer, but because this sand layer was of considerable depth, it seemed worth investigating how nearly pure it was. A quantity of material from this stratum, probably weighing nearly 5000 grams, was therefore sifted at the spot on a screen of fourteen meshes to the inch. The material held by the screen, 62.5 grams in weight, was subsequently taken to the museum and subjected to further examination. The result is that the writer is able to compute what he thinks a detailed analysis of a 5000-gram sample would show. This computation differs to a slight extent from the analysis of the 366 gram sample given above. It is as follows: .017% shell, .005% fish remains, .002% bird bones, .67% charcoal, .39% rock, .18% clay, and a residue, assumed to be, as in the 366 gram sample, 98.71% of sand, etc., fine enough to pass through a sieve with twenty-five meshes to the inch.

VI. A layer marked on the diagram, though the characteristics were not noted.

VII. Coarsely broken shell was conspicuous. At a depth of 3½ feet, which would be either at the very bottom of this layer or at the top of layer X, there was a small pocket of fish bones in close proximity to a whale vertebra. An analysis of a sample weighing 990 grams showed .56% crab shell, 31.22% mollusk shell, 4.86% fish remains, 1.72% bird bones, .58% charcoal, .1% rock, .92% clay, and 60.02% sand, etc.

VIII. Broken shell.

IX. Light colored sand.

X. Light colored sand and broken shell.

XI. Of all layers this had the highest percentage of shell and the lowest percentage of sand. It appears to have been an old beach exposed to the action of the waves. An analysis of a sample obtained at a depth of four feet and weighing 635 grams showed .015% crab shell, 43.79% mollusk shell, .077% fish remains, .03% charcoal, .39% rock, and 55.70% sand, etc.

XII. Alternate streaks of sand and shell.

XIII. Chiefly unbroken shells of several species.

XIV. Dark colored sand with but little shell.

XV. Largely composed of sand of a darker color perhaps than any other layer except layer I. The dark color is doubtless due to the presence of fine particles of charcoal, of which there are also many lumps about the size of grains of wheat. An analysis of a sample obtained at a depth of six feet and weighing 345 grams showed 3.65% shell, .026% fish remains, .026% bird bones, .32% charcoal, .09% rock, and 95.89% sand, etc.

XVI. This layer was composed largely of sand of a somewhat lighter color than that in the preceding layer. The numerous lumps of charcoal were about the size of peas and beans. Two samples were analyzed. The first, obtained at a depth of 6½ feet and weighing 302 grams, showed 23.84% mollusk shell, .1% fish remains, 1.92% charcoal, .66% rock, and 73.48% sand, etc. The second sample, obtained at a depth of eight feet (or eight inches above the base of the mound), and weighing 2024 grams, showed the following analysis: 17.64% mollusk shell, .028% fish remains, .015% bird bones, .015% cetacean bones, 1.8% charcoal, .07% rock, .022% clay, and 80.40% sand, etc. This sample was the only one analyzed which showed unmistakably the presence of any vertebrate remains other than fish and bird.

XVII. Light brown sand mixed with fine charcoal.

XVIII. Sand of a lighter color than that in the layer just above.

When the samples of mound material were selected to be brought to the University, the writer did not have in mind any such exact analysis as has been given above. In the first place, the samples were selected not so much to represent the mound as a whole, as particular layers, which in some cases were only a few inches in thickness. In the second place, many of the samples were so small that too much reliance should not be placed in the figures obtained on analysis. As an example of possible error: if a pint of sand weighing about one thousand grams contains a chert pebble half an inch in diameter, the one pebble alone constitutes about one-third of one per cent of the weight of the whole sample. The question then arises, should a pebble of the given size be included or rejected in the selection of a typical thousand gram sample from a sand streak? Still greater errors are liable to occur in analyzing small samples of coarsely broken shell, since the weight of a single valve runs up to at least ten grams for *Macoma nasuta*; one hundred for *Cardium corbis*; two hundred and fifty for *Schizothaerus nuttallii*; and three hundred for *Saxidomus nuttallii*, to judge from weighed specimens of the leading species. It will be seen that a trustworthy analysis of mound material from Humboldt bay requires a larger sample than from San Francisco bay mounds because the smallest species common in the northern region proves to be the largest species commonly found in the more southerly district.

Average Composition

The average composition of the mound as a whole can be approximated by a combination of the samples analyzed. In the case of the sample from layer III and the sample from the bottom of layer VII, we have two pockets abnormally high in the percentage of both fish and bird bones. Consequently these samples should be rejected in averaging. The seven other samples yield an average of 13.89% mollusk shell, .019% crab shell, .07% fish bones, .044% bird bones, .002% cetacean bones, .798% charcoal, .239% rock and gravel, .055% clay, and 84.87% sand and finer material passing through a sieve having twenty-five meshes to the inch.

By a somewhat different method of procedure another analysis of the mound composition was obtained for the upper six feet. While in the field, the writer was impressed by the unusual amount of sand in the mound as compared with the mounds at San Francisco bay.²⁵⁹

²⁵⁹ E. W. Gifford, *op. cit.*, table 1, shows the average composition of the San Francisco bay shellmounds to be 55.59% shell, .04% fish remains, .034% other vertebrate remains, .198% charcoal, 14.72% ash, 9.6% rock, and 19.8% residue.

In order to estimate the composition of the Gunther island mound in a rough way, five gallons of material, estimated to be from twenty to twenty-five thousand grams, were taken at the southwest end of the trench at all depths down to six feet, and sifted on two screens, one having four and the other fourteen meshes to the inch. The coarser material was estimated to be from 20% to 23% of the whole according to bulk and subsequently at the University was estimated to have been from 13.4% to 16% of the whole by weight. This was practically all shell, though there is much regret that it was not examined more closely before being thrown away, in order to have ascertained the amount of pebbles and vertebrate remains.

The medium sized siftings, which were caught on the screen having fourteen meshes to the inch and which were about 4% of the whole in bulk (estimated at the University to be from 2.4% to 2.7% by weight), proved a surprise. They revealed a proportion of fish bones that had not been suspected. All of these siftings were taken to the University, where an analysis of 467 grams showed 81.15% shell, 8.76% fish remains, 1.29% bird bones, 4.92% charcoal, 2.53% rock, and 1.34% clay.

The material passing through the screen having fourteen meshes to the inch was estimated to have a bulk of from 73% to 76% of the whole (or 81.3% to 84.1% by weight). A small sample of this finer material taken to the University indicated that from .8% to .82% of the whole five gallons of material was fine enough to pass through a sieve having fourteen meshes to the inch but too coarse to pass through a sieve having twenty-five meshes to the inch.

Combining the figures obtained by a rough measurement of bulk while in the field with the figures obtained by a more exact analysis at the University, we have a final estimate of the average composition of the mound for the upper six feet. It is as follows: 15.95% to 18.87% shell, .22% to .25% fish bones at the very least, .03% to .035% bird bones at the very least, .24% to .27% charcoal, .09% to .1% rock at the very least, .03% to .036% clay, and 80.43% to 83.44% sand fine enough to go through a sieve having twenty-five meshes to the inch. As an unknown amount of bird bones and pebbles and an occasional fish vertebra were thrown away with the coarser siftings, the percentage of these would be somewhat greater than the figures given, though what the limits would be, the writer does not venture to say.

Throughout the whole length of the trench, after a depth of about five feet had been reached, there was noted a marked increase in the proportion of sand.

Vertebrate Remains

Under the heading Fauna have been listed the species of vertebrate, as well as invertebrate, remains found in the mound. Every fragment of bone or horn noted during excavation, with the exception of bird bones, was saved. Bird bones were entirely too numerous to be saved without exception. Every piece was saved, however, which was thought to be either of sufficient size to aid in the identification of species, or to determine the relative abundance of each species if such a study should ever be attempted. The bird bones brought to the University weighed about nine pounds. Even if the full quantity of coarser bird bones was two or three times as great, they would not have aggregated one ten-thousandth by weight of the mound material. But though the coarser bird bones were not numerous enough to form an appreciable percentage, the finely broken fragments were sufficient in amount to be dealt with in the analysis of some of the layers, as has been shown. This result appears also in table 3, although some question may be raised as to what part chance played in the selection of the samples for analysis.

It was but rarely that a fish bone was found of sufficient size to be noticed, during excavation, though the presence of smaller fish bones was revealed by sifting. Unlike the bird bones, chance in the selection of samples for analysis can therefore not have affected the determined proportion of fish bones very materially.

The principal facts regarding the amount and distribution of mammal remains at different depths of the mound can be seen in table 4. About seven hundred and fifty fragments of bone and horn from mammals, weighing somewhat over thirty-six pounds, were obtained. A single whale vertebra, with several other large cetacean bones, constitutes fully a third of this weight. As the seven hundred and fifty bone and horn fragments were derived from an estimated 3500 cubic feet of mound material, one bone or horn fragment would come on the average from about each five cubic feet. Hence it is, that we can say the same of mammal remains as of bird bones, namely, that, at the very best, they can scarcely amount to one ten-thousandth by weight of the mound material. Probably the proportion is much less, and, unlike bird bones, no small fragments are revealed by sifting.

The impression was gained during the excavation that there were fewer mammal but more bird bones at Humboldt bay than in the San

Francisco bay mounds. Data for comparison with the San Francisco bay mounds is not readily accessible except in the case of a mound situated near Castro in Santa Clara county, and this mound is hardly typical of those in the San Francisco bay region, since it is situated about three miles inland from the open waters of the bay and is composed more largely of earth than of shell.²⁶⁰ In about 12,500 cubic feet of this Castro mound, 887 fragments of mammal remains were found. These weighed 46 pounds. These figures show results quite contrary to those expected, since there are about twice as many mammal remains at Gunther island as at Castro per cubic feet of material handled. As for bird bones, Castro mound had 53 ounces for the entire excavation. Consequently the amount of bird bones saved from the Gunther island mound would be ten times as great per cubic foot as at Castro.

Floors and Fireplaces

Besides the layers of stratification already described, one or two other features in the composition of the mound were noted. At the southwest end of the trench, at a depth of 2½ feet, there was a hard packed floor having a length of at least fourteen feet. It was made of sandy clay, three to five inches thick, which had been burnt to such a degree of hardness that a pick was required to break it up.

At a depth of two feet, just beneath human remains nos. 2 and 3, was a small floor of baked clay two feet in diameter and from 3½ to 4½ inches in thickness. It was really a double floor, for it had been made at different times. First, about two inches of clay having a saucer-like depression in the top had been baked to a good degree of hardness and used as a fireplace until the surface had been covered with a film of charecoal. Then another two inch thickness of clay was put on top of the previous floor and used as a fireplace until it, too, had acquired a smooth film of charecoal on its surface.

No other sign of either floor or fireplace was noted anywhere in the trench. There were neither streaks of ashes nor heaps of burnt stones such as indicate the frequent fireplaces in the mounds about San Francisco bay. Such pebbles and stones as occurred were scattered about singly, and will be mentioned more particularly in the pages to follow under the heading Chert Refuse, Cooking Stones, etc.

²⁶⁰ E. W. Gifford, *op. cit.*, table 2, gives Castro mound as 64% inorganic matter, while seven other large and more typical mounds at San Francisco bay average but 22% inorganic matter.

AGE OF THE MOUND

It is perhaps too generally considered proper for the archaeologist to discover stratification in every archaeological site, and then to make all that is possible out of such stratification, counting each distinct layer as a distinct age in the life and development of the former inhabitants. The writer has excavated in half a dozen mounds about San Francisco bay and has not encountered any stratification there except at Glen Cove, near Vallejo, where layers of calcined shells alternate with uncalcined. Uhle has also described similar conditions at Emeryville.²⁶¹ In these mounds the stratification is mainly due to the agency of fire and probably results from the practice of cremation of the dead. In all other mounds of that region, excavated either by the writer or by previous University investigators, some suggestions but no very definite evidences of cremation have been found. At Humboldt bay there is no calcined shell except in rather negligible quantities, and the various layers differ only in being composed of varying proportions of shell and sand, while the sand takes on different shades according to the amount of finely pulverized charcoal in it.

In the mounds mentioned on the shores of San Francisco bay the stratification is considered to be of no age significance. Neither is it at Humboldt bay except in the case of layer 1, which was the only layer extending the entire length of the trench. Of all the layers it had the most sharply defined limits. It is believed that this layer represents an age culturally distinct in at least one respect from the age preceding—the Indians of the more recent age burying their dead while the more ancient Indians practiced cremation.

Although no special significance can be attached to any of the other layers which have been described, yet it appears to the writer that three periods of development should be recognized: first, a camping period; second, a period of permanent residence when the dead were disposed of by cremation; and third, the period when the dead were buried. Though we thus indicate three periods, there appears to be no evidence of any change in material culture as revealed by the artifacts.

Before any mound existed at site 67, and when there was nothing but a marsh at that place, the Indians about the bay doubtless made use of the extensive tide flats to the northeast of Gunther island for gathering clams. Instead of taking the clams to their permanent

²⁶¹ Uhle also mentions a similar layer of calcined shell in a mound in west Berkeley and in another at Sausalito. Max Uhle, present series, VII, 8, 19, 22, 1907.

village, say at site 68, 23, 61, or elsewhere, it would be more convenient to roast them on the marsh at site 67. In order that their camping place might not be disturbed by high tides, especially the larger high tides occurring near the time of new moon or full moon, the Indians seem to have brought to the site large quantities of sand. This supposition, that the mound was begun simply as a camp for clam roasting, is in accord with the practice of the modern Indians, who used site 14 near the harbor entrance for just such a purpose.

After the mound had grown to a sufficient height, permanent houses were built, only to be destroyed occasionally by storms at times of exceptionally high tide. There may well be some foundation to the tradition that "there was a flood three times that drowned all the people" (see page 282). Even if there had been no tradition of a previous flood to act as an incentive to the continual bringing on of more sand along with the clams, the annual demonstrations of what storms could do in tearing away the sides of the mound would be sufficient. The result was that the Indians continued to bring on large quantities of sand even after any real necessity ceased to exist, although the proportions of sand in the upper five feet of the mound appear to be somewhat smaller than below that depth.

Another theory accounting for the rapid accumulation of sand is that the sand was needed in playing games, especially gambling games with clay balls. The remarkable uniformity in size of a certain type of clay ball found to be very numerous at depths varying from 1 to 51½ feet would furnish some basis for a belief that strata of these depths were all laid down within one generation, otherwise there would be a greater variation.

The objection may be raised that it is contrary to the general characteristics of Indians outside of the southeastern and central portions of the United States to deliberately construct mounds.²⁶² To this the writer would agree, yet we have the fact that the mound as a whole is composed of over 80% of sand and certain streaks as high as 99%. Every particle of this sand was brought to the mound by the agency of man. In proof of this it can be said that the mound

²⁶² H. H. Baneroff, *Works*, iv, 736-41, 1883, mentions the findings and speculations of an enthusiastic, though inexperienced, local investigator in Vancouver island and British Columbia. This investigator found shellmounds fourteen feet deep covering three acres; burial mounds of sand, gravel, or stones containing skeletons or partially cremated remains with suggestions of human sacrifice at the death of important personages; mounds "built of sea sand and black mould mixed with some shells"; mounds fifty feet high; and earth-works surrounded by ditches similar to those of eastern states. Obviously additional investigation will be required before all of these assertions can be fully accepted.

is situated on an island separated from the mainland by deep channels; the whole island has been a marsh covered with vegetation for thousands of years as evidenced by peaty streaks to a depth of two feet; and an examination of the mound itself shows that there is not a single six-inch thickness, possibly not even a three-inch thickness, of stratification that does not contain artifacts, cooking stones, pebbles, stone refuse, charcoal, fish bones, bird bones, or shell. A glance at table 3 shows that a 1216 gram sample of 99% pure sand contains an appreciable percentage of things that one would not naturally expect to find in sand deposited by natural agencies. On the North Spit there are mounds with alternate streaks of shell and sand. These unquestionably indicate a period of human occupation followed by a period of natural deposition. On the contrary, as regards site 67 the writer wishes to say that though he considers it, sand and all, as a deposition by human agency, he also considers it as a gradual accumulation extending over centuries.

Paul Schumacher,²⁶³ in excavating a mound at Ilustenate, ten miles south of Pistol river, which is one hundred miles north of Humboldt bay, found conditions as described below:

Decayed shells and bones, mixed with sand brought up from the beach, a mass of vegetable mould and rubbish, and all sizes of beach-stone, constitute the compost of the surface-layer to a depth of two to five feet, below which dark humus is found, over a soft slaty formation of a grayish color, which is coal-bearing. The house-sites are, as usual, irregularly located over a space of a hundred yards in length and something less in width. Considering the condition of the ground upon which we find the aboriginal settlements on the Oregon coast visited by our expedition, the opinion I have expressed in my previous report of such settlements on the southern coast of California holds good for this locality also: that all such stations had been established either on sandy ground, or that the nature of the ground had been artificially changed by layers of sand carried thither when it was rocky or hard. Sandy soil was necessary... for the erection of houses, which were partially dug in the ground, and surrounded by embankments. It was also a requirement for cleanliness, and healthful through its absorption of moisture in rainy seasons.

To express an opinion as to the age of the mound, with no more excavation than has been done, can hardly be anything but premature. Excavation was made only in one side of the mound at a considerable distance from the center. The deepest point reached was only 8 $\frac{2}{3}$ feet, while the depth of the mound in the center is at least 14 feet, even if it does not go below the present level of the marsh. Other

²⁶³ Paul Schumacher, *Researches in the Kjökkenmöddings and Graves of a Former Population of the Coast of Oregon*, Bull. U. S. Geol. Geog. Surv. Terr. (F. V. Hayden, geologist in charge), III, 27-35, 1877.

mounds of the vicinity, about as large if not larger than this mound, have not been touched at all. Yet any kind of an opinion may be better than none at all. At least it may satisfy for the time being, until farther excavations can be made.

All the artifacts found in layer 1, also those with human remains no. 7, may be very recent, but all others are doubtless several hundred years old even though some of them come from a depth of less than a foot. The reason for this opinion is that in 1860 the whole mound was covered with bushes except at one side where the modern village was located. There was also a pine tree two feet in diameter near the center of the mound. This would indicate that the central portion of the mound had undergone little, if any, change and perhaps been uninhabited for several hundred years. The burials at one end of the trench may be of people from the modern village, since they are sufficiently distant from the village and yet not far from the beach running around the mound.

The whole mound might possibly have been raised within 1500 years. If it were very much older, one would expect it to have been covered with timber instead of bearing one lone pine. Site 68, less than a mile distant, was covered with spruce and is a place around which have gathered several myths. This suggests that it is an older mound. Even before it had attained half of its present size, being on the center of the island, it would not be subject to so much devastation by high tide storms as site 67. There can thus really be but little question that site 68 is older than site 67, but it is itself situated on a marsh and must also have been a camping place for a longer or shorter period of time before it could have been a place of permanent residence. For this reason we should expect the oldest mounds of the region to be upon the mainland, say at sites 61 or 23.

HUMAN REMAINS

The remains of twenty-two individuals were found. Six of these were burials. The others lay in beds of charcoal where they had been cremated. Plate 12, figure 2, shows such of the charcoal beds as were cut by the vertical plane forming the southeast wall of the trench. The depth of other charcoal beds which were not cut by this vertical plane are indicated by crosses with arabic numerals which are the field numbers given to the human remains.

Table 5 shows the depth at which each of the human remains was found; whether buried or burned; whether of infant, child, or adult; and the number of artifacts with each. As some of the bodies were

more completely incinerated than others, the weight of the unconsumed fragments is also given. In two cases there was complete incineration, but the presence of artifacts indicated that a body had been cremated. There were several charcoal beds without either human bone fragments or artifacts. Some of these may have been places where the dead were cremated, but no account was taken of them unless they showed positive indications in this direction.

Burial

The buried remains of four adults and two infants were found at the northeast end of the trench and are, it is presumed, comparatively recent, although prehistoric. They were buried near the beach rather than toward the center of the mound, where there were more bushes. There is perhaps no part of California that did not practice cremation at some period,²⁶⁴ but in many areas, whenever they did bury, the position of the dead was usually in a more or less bent position, frequently with the knees drawn up to within six inches or so of the chin. The modern Indians about Humboldt bay seem to have always buried their dead in a straight position, and the very earliest pioneers report seeing a great many graves marked by headboards and footboards. Robert Gunther described in somewhat the following language the manner of burial at the modern village on site 67.

Six months after the massacre of February 26, 1860, an ox broke through into one of the graves, and afforded an opportunity for examination. The Indians had chosen what was already a low spot and had scooped it out so as to make the bottom of the grave about four feet deep. They had put redwood planks on the bottom and sides, then laid in old rags, on which seven of the dead were placed side by side together with their belongings. The grave was covered with other planks on top of which dirt was placed.

This seems to have been the usual manner of burial at Humboldt bay²⁶⁵ previous to the coming of the whites, the chief peculiarities in the present instance being the lack of headboards and the unusual size of the grave made necessary by the large number of dead.

²⁶⁴ There is no record of the Eskimo or the Indians of the Columbia river and its tributaries ever burning their dead, but it would appear that most other tribes of the Pacific coast have at times cremated. For cremation among the following see Baneroff's Works: Kenai, I, 134; Copper river, I, 135; Mackenzie river, I, 132; Nehannes, Taculies, Chinmesyans, and Carriers, I, 125; Nootka, I, 205; Vancouver island, IV, 738-39; Coos bay, I, 248.

²⁶⁵ Stephen Powers (*op. cit.*, p. 99) was told by a pioneer that he had seen hundreds of graves at some burial grounds, each marked with a redwood slab, which, being a very durable wood, made it probable that some of the graves were seventy-five or a hundred years old. These statements agree with the findings of the writer after making due allowance for exaggeration.

Paul Schumacher, while investigating for the Smithsonian Institution the shellmounds of the southern Oregon coast, found a variety of ways for the disposal of the dead even within the historic period—the period in which glass beads and objects of metal were used. In some instances he found conditions approaching those of cremation. Possibly a reëxamination of the Oregon coast shellmounds might show that some of the human bones were slightly calcined, indicating that fire was used to consume the flesh even though it was extinguished before it greatly affected the bones. At Hustenat, ninety miles north of Humboldt bay, Schumacher²⁶⁶ found cases of burial as described below:

On digging, the graves were found to be very shallow, the skeletons being interred but one and a half to two feet below the surface. The sides of the excavation were lined with split redwood boards, about four feet in length and a foot in width, placed edgewise, and reaching to the floor of the grave, which was covered with beach-sand to the thickness of about one inch; the width was not over two feet, and both ends of the excavation were open, that is to say without lining. The corpses were found doubled up in the usual manner. . . . Immediately above the body was placed a board resting on the lining, to which it was secured by cobble stones of various sizes, some weighing as much as fifty pounds. The graves were then filled up with earth. . . . With babies' skeletons, and a young woman's corpse, we found some much decayed money-shells. . . . A few glass beads were also found with skeletons of grown females.

Although the main facts regarding each of the burials at Gunther island are shown on table 5, a few additional notes seem worth while.

No. 8. Complete skeleton of a person of middle age or older. Eight of the teeth had been lost during life and there were six ulceration cavities²⁶⁷ in the jaws. The bones were not very large, indicating that the skeleton was probably that of a woman. The skeleton lay supine, stretched out to a length of 4 feet 10½ inches.

No. 5. A large sized tibia and the bones of the feet.

No. 6. Skeleton of an adult, probably of a man, as the bones are very stout and the skull has a strong supra-orbital ridge. The skeleton was within a foot of the surface and in consequence the ribs and both jaws were missing. Complete

²⁶⁶ Paul Schumacher, *op. cit.*, p. 34.

²⁶⁷ The great number of ulceration cavities in the two complete skulls found in this mound is without parallel in the skulls from any other region known to the writer. Because of this fact the query is raised as to whether mouth diseases were not unusually prevalent at Humboldt bay, in addition to the scrofulous complaints previously mentioned. See page 301. Another complete skull from Gunther island, probably from site 68, illustrated and described by Aleš Hrdlička, present series, iv, 49-64, 1906, also has apparently four ulceration cavities and possibly six. In connection with Dr. Hrdlička's paper and the confusion between two skulls referred to in the footnote on page 52, it might be said that skull no. 12-81 described as being from "Sandspit, Humboldt Bay," is undoubtedly identified correctly. Human bones exposed at site 14 are in a very short time bleached and scoured by drifting sands until they have exactly the appearance presented by the skull in question.

field notes and sketches showing the exact position of this skeleton are lacking. On the diagram, plate 12, figure 3, the position of the head is correctly given, but for the direction of the feet a somewhat hazy memory is relied upon. However it can be asserted that the body was buried supine, stretched at full length.

No. 7. Complete skeleton of a person of middle age or older, as five teeth had been lost during life and half a dozen ulceration cavities filled the jaws. The bones were not extra large. The skeleton was found in a supine position stretched out to a length of $4\frac{1}{2}$ feet. It was a little over two feet below the bottom of layer I. As graves were usually dug to a depth of about $2\frac{1}{2}$ feet, it is considered that this skeleton is merely an intrusion into the older strata of the mound. This is the only case of a burial with which there were any artifacts. Over each clavicle, there was a rectangular piece of abalone (pl. 21, fig. 10), both of almost exactly the same size, $1\frac{3}{4}$ by 4 inches. On the breast was a red obsidian knife (pl. 13, fig. 6).

No. 21. Femur of a baby a few months old.

No. 22. Tibia and frontal of an infant just born.

Cremation

How long it has been since the Indians at Humboldt bay changed from the practice of cremation to that of burial, has not been determined, nor the reason for such a change. The Spaniards who discovered Trinidad bay in 1775 said of the Indians there that "they observed some strange ceremony, for when a certain Indian died, they cried out for him, burning him in the palace of the captain, into which they permitted none of our men to go during the ceremony, but having succeeded in doing this, those who got in found nothing in particular."²⁶⁸ Palace, as translated from the word *casa*, is doubtless the sweat-house, where ceremonies of various kinds were observed. The Spaniards may have been mistaken about the body being cremated. People living at Eureka at the time of the massacre in 1860 and seeing fires on Gunther island and at Bucksport, mistakenly reported to newspapers²⁶⁹ that the dead were cremated. In the same way the Spaniards seeing smoke issuing from the sweat-house, and hearing all the sounds of mourning, might have taken for granted that the dead were being cremated. Powers²⁷⁰ stated that the Yurok buried their dead in a recumbent posture, but kept a fire burning several nights in the vicinity of the grave.

As for other peoples to the south and east of the Wiyot, Powers stated that the Mattole²⁷¹ cremated, and was informed that the Whil-

²⁶⁸ Don Antonio Maurelle, *op. cit.* (footnote 27), Madrid edition, 1865.

²⁶⁹ San Francisco Bulletin, Mar. 2, 13, 1860; Northern Californian, Feb. 29, 1860.

²⁷⁰ Stephen Powers, *op. cit.*, p. 58.

²⁷¹ *Ibid.*, p. 110.

kut²⁷² cremated also but believed that their custom was somewhat varied. A Whilkut burial custom has already been described on page 254.

The manner of cremation at Humboldt bay seems to have differed in some respects from that at San Francisco bay and other parts of the state. It is hoped that the special points of difference may be described in some future paper. The cremated remains at Humboldt bay were found as a rule in saucer shaped beds of finely pulverized charcoal having a diameter of four or five feet and generally a thickness of four or five inches though sometimes as much as ten inches. A few humps of charcoal, which seemed in every case to be of redwood, were two to four inches in length. It would appear that the dead were burned on a platform above a round hole which had been scooped out for a grave and into which the charcoal, unconsumed bones, and artifacts fell. In general, nearly all of the bone fragments are over an inch in length. Skull fragments are two to four inches square. Vertebrae are often nearly whole except for their projections. Sections of femurs, especially the proximal ends, are found four to six inches in length. These bone fragments are generally calcined only on one side and are found in one linear series extending for a length of about three feet, the bones below the knee usually being wholly consumed.

In the case of remains nos. 16 and 17 the beds of charcoal were not circular but rectangular, two feet wide by five feet long. This means that rectangular graves were dug, above which the dead were burned. These two beds of charcoal were the only ones where there were human bones without artifacts in association. An examination of table 5 and plate 12 will show that 4½ feet is the greatest depth at which circular charcoal beds were found. Of the two rectangular beds, one was three inches higher than this level, the other a foot lower. Hence it is possible that remains nos. 16 and 17 represent an earlier period of time when cremation was practiced but the custom differed somewhat from that of a later time. The absence of artifacts in the rectangular charcoal beds and scarcity of artifacts below the 4½ foot level makes it impossible to say whether or not the earlier period was culturally distinct in other respects.

Paul Schumacher, while excavating in a mound near the mouth of Pistol river one hundred miles north of Humboldt bay, describes the disposal of the dead as follows:²⁷³

²⁷² *Ibid.*, p. 88.

²⁷³ Paul Schumacher, *op. cit.*, p. 32.

Doubled up, the skeletons were resting near the wall of the excavation [wall of the house-pit], and faced the fire-place. . . . In one instance, two skeletons were found buried in one house . . . the earth covering the skeletons was strongly mixed with charcoal, pieces of charred wood, fragments of animal bones, and shells blackened and partially consumed by fire. On the floor on which the skeletons rested was found a layer of ashes several inches in thickness. But the fire had not affected the skeletons, as in no instance was any such damage observed, and even the remains of matting, furs, and other similar perishable material were not injured by it. It seems, therefore, evident that the hut was demolished by fire, after the owner had expired, and was buried in the ruins, covered with rubbish and earth surrounding his house. Except some glass beads found with a female skull and three roughly cast copper buttons with that of a male, nothing was unearthed that had apparently been deposited with the dead.

In addition to the main facts given in table 5, the following notes regarding each of the cremated human remains are presented. The order of arrangement is the order in which the remains were located in the trench from the northeast to the southwest end.

No. 4. About half of the bone fragments were not calcined. The heads of the femurs were in their sockets in the pelvis. Many of the vertebrae were in line. A scapula was found, but not a single fragment of the skull. A fine black obsidian knife, $13\frac{1}{2}$ inches in length, broken into eight pieces, was at the left side. Arrow points and other artifacts were near the pelvic bones.

No. 3. The charcoal bed with these remains, overlapped charcoal beds nos. 4 and 2, but there was no difficulty in keeping the artifacts and bone fragments from these beds apart. The remains consist of the proximal ends of the femurs, pelvic bones, a number of vertebrae, and one tooth but no sign of any fragment of the skull. Near the pelvis was a large pestle and eleven sinkers.

No. 2. Eight or ten vertebrae, a few small limb fragments, and one tooth belonging to a child, found with a remarkable assemblage of artifacts consisting of a stone pipe over nine inches long, fourteen arrow points, a girdled stone, and a black obsidian knife $10\frac{1}{2}$ inches long. This child was sent on his way certainly well equipped. Such articles are not often found with the remains of children, but are usually considered as the possession of a shaman or man of wealth.

Lying partly beneath remains no. 2 and partly beneath no. 3 was an unusual bed of baked clay which has been described on page 346. It did not necessarily have any relationship to the human remains.

No. 1. Fragments of skull, humerus, ulna, femurs, etc., only partially calcined, along with a stone adze handle, two white flint ceremonial blades, and other artifacts. The charcoal bed containing these articles is not cut by the vertical plane shown in plate 12, figure 2, but two other charcoal beds close by at somewhat greater depths are cut by the vertical plane and are shown on the diagram. The two latter beds showed no signs of human remains.

No. 12: The bones, but partially calcined, indicated an adult of large size. There were half a dozen bone fragments of an elk in the same charcoal bed. With the possible exception of remains no. 8, near which were some elk bones, this was the only indication that food was offered to the dead, and even in these cases the evidence was not positive. The artifacts, ceremonial blades, and clay balls found with no. 12, indicate a man of wealth.

No. 14. A few fragments of a femur, vertebrae, and skull. The artifacts found with these remains make a total of 112 objects, or nearly as many as were

found with all the other human remains combined. Among the most notable objects were a great many clay balls of almost uniform size, and a ceremonial war-club or "slave-killer." No artifacts were found elsewhere at a greater depth in association with human remains. The charcoal bed had a thickness of ten inches.

No. 15. In this case there was a bed of charcoal slightly overlapping remains no. 14. There was not a single trace of any human bone, but there were four artifacts.

No. 16. Fragments of a femur $6\frac{1}{2}$ inches in length, besides a few small fragments of the skull, pelvic bones, etc., scarcely at all calcined, found in a rectangular bed of charcoal containing no artifacts.

No. 10. A fairly large adult, as judged by a seven-inch fragment of a femur. The remainder of the bones were broken into somewhat smaller fragments which were scarcely at all calcined. There were no artifacts in immediate association with the bones for there were two charcoal beds, one directly above the other, separated by three or four inches of sand. In the lower bed of charcoal there were no human bones but a great many olive shell beads and a couple of other objects.

No. 18. Partially calcined, eight-inch fragment of the femur of a young person, along with an obsidian knife, a clay ball, and a pair of abalone pendants.

No. 9. A few bone fragments, including a piece of a fairly large femur. In a limited area around the pelvic bones were found several beautiful obsidian blades, dentalium shells, olive shell beads, carbonized pine nut beads, *Viburnum*-seed beads, and other things. A little to one side were a heap of carbonized basketry, slag, a knife, and so forth.

No. 19. After the trench had been dug as deep as time allowed, the perpendicular walls were undermined and, at a distance of about three feet from the pelvis of remains no. 9, the pelvic bones of another individual were found, along with a nine-inch piece of a medium sized femur, many skull fragments, vertebrae, etc., in fact, a large part of a skeleton but partially calcined. Some of the finest artifacts of the whole excavation were found with these remains. These artifacts include a beautifully shaped "slave-killer," several obsidian ceremonial blades (one of which, a red one, is estimated to have had an original length of nearly sixteen inches), a steatite pipe, a clay pipe, two pestles, two mauls, dentalium shell, olive shell beads, carbonized pine nut beads, carbonized *Viburnum*-seed beads, and so on. The objects with remains nos. 9 and 19, though separated from each other enough to prevent much chance of mixing, were surrounded by a single charcoal bed over seven feet in diameter.

No. 11. The human remains consisted of only one tooth of a child. The accompanying artifacts were two shell ornaments and four carbonized pine nut beads.

No. 13. There was here a complete incineration of a human skeleton, leaving nothing but a half dozen artifacts.

No. 17. A very few fragments of limb bones, etc., nearly all calcined, found in a rectangular bed of charcoal containing no artifacts.

No. 20. A very few small calcined bone fragments, presumably human, found with two pestles, two mauls, and a number of bone artifacts among a small amount of ashes and charcoal upon a hard baked clay floor previously described on page 346.

MATERIAL CULTURE

Chipped Implements

A total of eighty-eight chipped objects of obsidian, chert, and other stone were found in association with twelve of the human remains. These can be classified into a dozen types of implements as shown on table 7. In addition to the chipped implements in association with human remains, there were five specimens not in such association. These were a fragment of a red obsidian blade found at a depth of one foot, a fragment of a black obsidian blade at a depth of nine inches, two small greenish chert knives at depths of six inches, and a scraper at a depth of nine inches.

Obsidian Ceremonial Blades.—Under this heading will be mentioned objects variously known as ceremonial blades, knives, or swords, chipped from black or red obsidian and having a length of 17 centimeters or more. The use of these on the Klamath river and elsewhere in the White Deerskin dance and in the Woodpecker or Jumping dance is quite fully described by H. N. Rust and A. L. Kroeber in the *American Anthropologist* for 1905. As nothing was learned by the writer regarding the use of these implements at Humboldt bay, and as nothing is known of the dance ceremonies practiced by the Wiyot, the reader is referred to this article for further information.²⁷⁴ No doubt the Wiyot or their predecessors accounted these knives as objects indicative of the wealth and rank of their possessors much like the modern Indians on the Klamath and Trinity. The detailed description of six specimens made from black obsidian follows, a typical example being illustrated on plate 13, figure 1.

Five specimens of black obsidian blades were found, which were complete or nearly complete. The length of these (after adding a little in two cases for broken tips) is 272 mm., 280 mm., 342 mm., 347 mm., and 410 mm. They were found in association with cremated human remains nos. 2, 4, 9, 12, and 14, the shortest one being at the greatest depth, 4.8 feet, and the longest one nearest the surface, 1.3 feet deep. The extreme variation in width of the specimens is 11 mm., the average being 53 mm. All are double pointed and the edges are in general nearly parallel throughout most of their length, but sometimes the blade is very

²⁷⁴ For description and illustration of similar knives from the Santa Barbara region, southern California, see C. C. Abbott in G. W. Wheeler, Report on U. S. Geog. Surv. West of the Hundredth Meridian, vii, 49-69, 1879. The longest and finest specimen of this type known is illustrated by W. K. Moorehead in *Stone Age in North America*, 1910, i, 97. The legend written on the specimen and shown in the photographic reproduction is "Somesbar, Salmon River, Siskiyou County, California, 5" x 30", 101 oz." A second specimen, also illustrated, from the same locality is 22 inches long and weighs 68 ounces. The longest specimen obtained by the present writer at Gunther island (pl. 13, fig. 1), is nearly 16 inches long and weighs about 13 ounces.

slightly constricted in the center. The variation in thickness is not great, the average being 14 mm. In addition to the more complete specimens one small fragment was found.

Eight specimens of the red obsidian blade, or rather variegated red and black, were found. One of these (pl. 13, fig. 6), is of quite different type from the others, differing mainly in being narrower and having more pointed ends. It is 211 mm. long, 30 mm. wide, and from 8 mm. to 12 mm. in thickness. It was found with a skeleton, no. 7, at a depth of three feet. This was the only case in which uncremated human remains had any artifacts in association with them, and a different custom of disposing of the dead may account for the difference in the type of artifact.

Six other specimens of red obsidian blades belong to the same type as the black ones previously mentioned. Besides these, a small fragment scarcely an inch long, found with remains no. 4, is considered as being unquestionably of the same type. Following is a detailed description of the six larger specimens. Plate 13, figure 2, illustrates one of these.

Three complete specimens having lengths of 171 mm., 190 mm., and 282 mm., were found in association with human remains nos. 14, 9, and 19 at depths of from 1.3 to 4.8 feet. One fragment 160 mm. long with remains no. 9 is judged to have had an original length of 215 mm. A second fragment 305 mm. long with remains no. 19 is judged to have had an original length of 380 to 400 mm. A third fragment four inches long was not associated with any human remains. The extreme variation in width of these six specimens is only 12 mm., the average width being 47 mm. The average thickness is 16 mm.

The red obsidian blades like the black ones are double pointed and their edges are nearly parallel, except for the largest specimen which has a very slight constriction in the center, from which fact we are able to make an estimate of its original length before being broken. None of the specimens, either red or black, show a constriction any more pronounced than in the specimens illustrated in the article of Rust and Kroeber previously mentioned. A remarkable uniformity is seen in the width of both the red and the black blades, but owing to the difficulties of chipping, it would be hard to maintain a uniform thickness even though it were desired. However, the extreme variation in thickness is only 7 mm.

Blades and Knives of White Flint.—The type of implement designated as ceremonial blades of white flint is a species of knife remarkable for its width in proportion to its length. Complete specimens of this type are two or more inches wide and four or more inches long. Exactly what position this white flint should occupy in mineralogy has not been ascertained, but from the shape of various specimens from the Klamath river region it would appear that it is of such a nature that it is easily worked into very broad, thin implements. At

the same time the same, or a similar mineral, by a different method of chipping, can be made into drills²⁷⁵ having a triangular cross-section. The three most complete specimens of blades made from white flint are illustrated on plate 13, figures 3 and 4, and on plate 14, figure 1. The description follows:

Museum no. 1-18061 (pl. 13, fig. 3), found in association with human remains no. 1. Dimensions: 206 mm. long, 85 mm. wide, and 9 mm. thick in the center. Museum no. 1-18070 (pl. 13, fig. 4), found in association with human remains no. 12. Dimensions: 125 mm. long, 55 mm. wide, and 7 mm. thick in the center.

Museum no. 1-18217 (pl. 14, fig. 1), found in association with human remains no. 9, is an implement of considerably different type from the other two specimens, but, owing to its fragmentary condition, we are unable to determine its original shape. It has a width of 50 mm. and a thickness of 10 mm.

Besides the above described specimens there were three other fragmentary specimens, apparently of the broad type, found in association with human remains nos. 1, 13, and 15. In table 7, seven specimens of white flint are listed under the heading "knives." Most of these were poorly worked or quite fragmentary, and apparently of no great width.

Single Pointed Knives.—Of eight specimens three were of black obsidian, the others of chert. Those best preserved are described as follows:

Two obsidian knives, Mus. no. 1-18234 (pl. 13, fig. 7) and no. 1-18235, were in association with human remains no. 19. Both are of nearly the same dimensions, being 52 mm. wide, 10 mm. thick, and having an original length estimated to have been 140 mm. before the specimens were broken. They differ from the larger ceremonial blades in being thinner, in having perfectly straight bases, and when looked at edgewise are seen to be slightly crooked.

Museum no. 1-18212 (pl. 13, fig. 8), found with human remains no. 18, is made from obsidian, is rounded at one end, and very bluntly pointed at the other. Dimensions: 111 mm. long, 53 mm. wide, and 15 mm. thick near the pointed end. The object has the appearance of having been worked from a fragment broken from a ceremonial blade. The central portion of the sides is tarnished from exposure, while the edges and both ends show signs of fresh chipping. There even seem to be faint signs of a third retouching. The point seems too blunt, too thick, and too coarsely chipped, to serve any very useful purpose, but all the other edges are sharp.

Museum no. 1-18216 (pl. 13, fig. 9), found with human remains no. 9, is a handsome specimen of grayish and horn colored chert. It has a rounded base and is 131 mm. long, 48 mm. wide, and 11 mm. thick.

Museum no. 1-18071, made of a variegated greenish and brown chert, was found with human remains no. 12. Dimensions: 113 mm. long, 35 mm. wide, and 9 mm. thick.

²⁷⁵ The mineral may possibly be what is known as argillite or porcellanite, a form of clay slate or clay schist. A Yana Indian seeing a specimen of porcellanite in a museum show case said that it was the material from which drills were made.

Museum no. 1-18308 (pl. 13, fig. 5) is a greenish chert knife 50 mm. in length, a small portion of the base being broken off. A similar knife 59 mm. in length, was also found, both being at a depth of only six inches.

Scrapers.—Two specimens were found which are considered scrapers, one made from red obsidian, and the other from brown chert. Their description is as follows:

One fragment of a red obsidian scraper (Mus. no. 1-18010) was found in association with remains no. 4. So large a portion has been broken off that the attempted restoration of its outline as shown in text figure 2 should not be taken too implicitly. The object has a length of 57 mm. and a thickness of 9 mm.

Museum no. 1-18310 (pl. 15, fig. 5) is a chocolate colored chert scraper found at a depth of nine inches. It has a length of 36 mm. Its comparatively great thickness, 6 mm. towards the base, would indicate that it is not an unfinished arrow point.



FIG. 2. Scraper. No. 1-18010. One-half natural size.

Spear Points.—Nothing was found which could with any certainty be considered as a spear point. Two specimens, figures 8 and 9 of plate 14, are long enough for spear points, but are considered to be drills. An obsidian fragment 45 mm. long, found with human remains no. 3, has a somewhat closer resemblance to a spear point.

Drills.—Eight objects were found which are considered to be drills. All of them are illustrated on plate 14. Five of them, figures 8 to 12, are made of a variety of white flint which is a favorite for drill making in various regions of the west. One, figure 14, is of brown colored chert, and two, figures 13 and 15, are made of black obsidian. Five of the specimens were found in association with human remains no. 14, the others with remains nos. 4 and 13. A more detailed description of each drill follows:

Figure 8 (Mus. no. 1-18261) is long enough for a spear point, but it lacks a good cutting edge and near the point it is 9 mm. thick or nearly as thick as it is wide.

Figure 9 (Mus. no. 1-18111) has a better cutting edge than the last but it is 8 mm. thick, which makes it rather too heavy for an arrow.

Figure 10 (Mus. no. 1-18014) has a rather thin delicate point for a drill but can hardly be referred to any other class of implement, unless it is an unfinished specimen.

Figure 11 Mus. no. 1-18114 and figure 13 Mus. no. 1-18108 are triangular in cross-section, while figure 12 Mus. no. 1-18105, figure 16 Mus. no. 1-18104, and figure 14 Mus. no. 1-18012 are lenticular in cross-section, having a thickness half or two-thirds as great as the width.

Arrow Points.—Twenty-five specimens of black obsidian arrow points were found in association with several human remains as shown in table 7. They varied in length from 12 mm. to 46 mm. The shorter ones have a form similar to that shown in plate 13, figure 7, while the larger ones are shaped more like that shown in plate 14, figure 5. Two obsidian arrow points are illustrated on plate 14, figure 4, showing the more typical form and size, while figure 7 is an object of rather unique form found in association with human remains no. 14.

Fourteen arrow points made of white flint were obtained. Most of these are of medium size and are more or less fragmentary. One specimen, Mus. no. 1-18112 pl. 14, fig. 6, found with human remains no. 14, has a single notch in the center of the base. With this exception all of the complete specimens have a rather wide stem, with a notch at each side, and medium sized barbs. Museum no. 1-18109 pl. 14, fig. 5 is an unusually lengthened form.

Of chert arrow points, five specimens were found. Two are illustrated on plate 14, figures 2 and 3. Museum no. 1-18107 pl. 14, fig. 2, found with human remains no. 14, is the only one of a particular type found in the excavation. The type is common at sites 10 and 34. The specimen is very thin, having a thickness of only 3 mm., and has very long barbs. These characteristics are considered as the essential features of an Oregonian type of arrow point which will be mentioned again when the artifacts from various other sites are dealt with.

Objects Made of Sandstone

Under this heading will be described 110 specimens, mainly sinkers, mauls, and pestles with a few other objects. Slightly over one-quarter of these specimens were in association with human remains, the others being scattered at various depths down to six feet. In reality eight of the sinkers listed in the tables under the heading "sandstone" were made of chert, granite, or porphyry, but as they do not differ in form from the sandstone sinkers, they are not separated from this type of artifact.

Pestles.—The fifteen specimens found are all in a broken or fragmentary condition, but it was possible to cement the pieces together

so as to make two complete specimens and one nearly complete. They can be described as belonging to two slightly different types, namely, flanged, and not flanged. Three specimens belong to the first type, one to the second type, while the other eleven are too fragmentary to be definitely placed with either type.

The flanged pestle, whose distinguishing feature is the flange or ring near the bottom, is particularly described as follows:

Museum no. 1-18022 (pl. 16, fig. 1) was found in association with human remains no. 3. It has been broken by the heat of the fire into thirty pieces, but when cemented together was 447 mm. in length and weighed six pounds. It has a gently tapering top ending in a blunt point. A little above the base it has a flange or ring. Here the pestle has a diameter of 72 mm. or 4 mm. greater than the diameter just below the flange. The pestle is symmetrically made from a very hard, close grained, dark gray sandstone, and is well polished.

A second nearly complete specimen was found with human remains no. 19, while a third fragment found at a depth of five feet would indicate that this type is not confined to the more recent strata of the mound.

As a usual thing pestles of this type are pointed at the top, though sometimes the top appears to have been broken off and then smoothed over. Nearly all of them, as well as the mauls, sinkers, and adze handles found in Wiyot territory, are composed of a very hard, close grained sandstone. Several fine recent specimens from the Klamath and Trinity rivers are in the museum. These are remarkable not alone on account of the ring and great length, but also on account of their symmetry and exquisite black polish. Two of them are shown in outline on page 389 in text figures 11 and 12 and are here described for sake of comparison.

Figure 11, mus. no. 1-11676, obtained at Weitchpec on the Klamath, is 663 mm. long, and the longest in the collection. Weight: 11½ pounds. Diameter at the flange, 87 mm. Greatest diameter below the flange, 72 mm.

Figure 12, mus. no. 1-816, obtained in Hupa valley. Length, 471 mm. Diameter at the flange, 90 mm., which is 30 mm. greater than the diameter below the flange.

This type of pestle occurs from a little to the south of Cape Mendocino northward throughout the Wiyot, Yurok, and Hupa territory. Memorial Museum, Golden Gate Park, San Francisco, has several flanged pestles from Curry county, Oregon, essentially of the same type, only not so well polished. The northern limit of the type is unknown.

The pestles from the Pomo culture area to the south are pointed at the top, but have bulbous bases without rings. In the shellmounds at San Francisco bay and on the Santa Barbara islands and adjacent mainland, pestles with flanges have been found, but these are of an-

other type entirely, being generally only three to six inches long and having the flange at the top rather than at the bottom of the pestle.

The pestle found in the excavation at Gunther island which had no flange is described as follows:

Museum no. 1-18251 was found in association with human remains no. 19. Length 365 mm. Diameter 74 mm. Weight 5 pounds 10 ounces. It has a tapering top, is very symmetrical, but is not smoothly polished, the marks made by pecking showing over its surface like the marks of smallpox. It has been broken by the heat of the fire at the time of cremation into fifteen pieces. There is really but little difference between this pestle and the type already described except that it lacks the flange.

Mauls.—An implement well represented in the mound is the maul used with elkhorn wedges in splitting out house planks and in driving stakes for fish traps. There were three complete specimens and eighteen fragments found. Nearly all came from the upper three feet in the excavation, but several were from lower depths, one being found at a depth of 5¼ feet. Three specimens are illustrated on plate 16. These are particularly described as follows:

Museum no. 1-18269 (pl. 16, fig. 3), found in association with human remains no. 20, is 172 mm. long and 90 mm. in diameter, and weighs 3¼ pounds. It is very symmetrical and has a neat expansion at the top. Three of the fragmentary specimens showed a like expansion at the handle end.

Museum no. 1-18254 (pl. 16, fig. 4), found in association with human remains no. 19, is 271 mm. long, 115 mm. in diameter, and weighs 7 pounds. The handle is well rounded and polished but less care was bestowed upon the bulbous part, it being somewhat triangular in cross-section. It was broken by heat into a dozen fragments. There was another complete specimen and seven fragments which lacked the expansion at the top.

Museum no. 1-18504 (pl. 16, fig. 5) is a boulder partly fashioned into a maul when it accidentally split longitudinally. It is of interest as showing a stage in the process of manufacture.

The museum has a considerable collection of mauls from the Klamath river varying much in form and size, the heaviest weighing 71½ pounds. They are made of various kinds of stone, such as sandstone, steatite, porphyry, and granite, while all of those from Wiyot territory are of sandstone, except one fragment of granite found near the surface. Some of these mauls resemble in shape the poi pounders of the Hawaiian islands. Similar implements occur in Oregon, Washington, and British Columbia,²⁷⁶ though sometimes described as pestles.

²⁷⁶ H. J. Spinden, *The Nez Percé Indians*, Mem. Am. Anthr. Assoc., II, 185, 1908; H. I. Smith, *Archaeology of the Yakima Valley*, Anthr. Papers Am. Mus. Nat. Hist., VI, 40-44, 1910; *Archaeology of the Thompson River Region*, Mem. Am. Mus. Nat. Hist., II, 413, 1900; *Shell-heaps of the Lower Frazer River*, *ibid.*, IV, 156, 1903.

Adze Handles.—Six specimens of the stone adze handle were found, all but the two shown on plate 16 being fragmentary. They were at depths varying from a few inches to $2\frac{3}{4}$ feet, only one being in association with human remains. This implement, characteristic of northwestern California, is made serviceable by binding to it a cutting blade made from bone, horn, flint, or shell, which was replaced by metal after the coming of the early voyagers. Though numerous chisels and gouges made of bone and horn were found throughout the trench, none were in association with handles. The manner of attaching the blade to the handle is illustrated in volume 1 of the present series, plate 3, to which the reader is referred. The adze was used in planing wood somewhat as the carpenter's plane is used, except that the implement is drawn towards the person instead of being pushed. The recurved portion serves for the handhold. Quite different types of adzes have been described by Smith²⁷⁷ from the Yakima region and by Niblack²⁷⁸ from Haida and Tsimshian territory.

Disk-shaped Sinkers.—Fifty disk-shaped sinkers, fourteen in association with human remains, were found in fairly even proportions at all depths. They were made mainly from sandstone pebbles by notching the edges, never the ends as in the case of similar sinkers from the Yakima valley, though a few had marks on the ends of such nature as to indicate that they had been put to a second use as hammer stones. Five were made from disk shaped pebbles of chert, two of granite, and one of porphyry. There is no great variation, either in size or other respect, from the one shown in plate 17, figure 7. The size varies from 50 mm. to 82 mm. in long diameter, and from 1.1 to 5.5 ounces in weight.

Girdled Stones.—Plate 17, figures 8a and 8b, illustrates one of five similar objects. Only one was in association with human remains. One was at a depth of $5\frac{3}{4}$ feet, the others at depths of one to two feet. These stones vary from 54 mm. to 63 mm. in length and from 3.1 to 4.8 ounces in weight. They are not natural pebbles, but were shaped by pecking and have a groove encircling them. There is no reason why they could not be used as sinkers, yet the writer is not inclined to regard them as such. When the disk-shaped pebble is seen to have been used so extensively as a sinker, not alone in the excavated mound, but throughout the Wiyot and Yurok territory, the presence of only

²⁷⁷ H. I. Smith, *Archaeology of the Yakima Valley*, *op. cit.*, p. 64.

²⁷⁸ A. P. Niblack, *Coast Indians of Southern Alaska and Northern British Columbia*, Report U. S. Nat. Mus. 1888, p. 279 (1890).

five of these girdled stones leads to the belief that they had some other use. The ordinary sinker found in the shellmounds of the San Francisco bay region is a natural pebble girdled, but there are a number of specimens similar to the girdled stones of Humboldt bay. Several similar objects have been obtained in Butte county in the Sacramento valley. One of these (Mus. no. 1-19586) was made of translucent quartz and polished perfectly smooth, groove and all. Because of its small size (longest diameter 42 mm., weight 2 ounces) as well as the care expended in making it, it should perhaps be regarded as a charm-stone or some ceremonial object.

Museum no. 1-18526 (pl. 17, fig. 9) is a remarkably symmetrical granite stone, apparently natural shape except for the encircling groove. It is 93 mm. in greatest diameter, and weighs 16.3 ounces. It was found on the beach opposite the recent village at site 67.

Hammer Stones.—Seven hammer stones have been listed in table 8. To this number could be added six others, already mentioned, which have been classed as disk-shaped sinkers. The notches on their edges show that they had been used as sinkers, while marks on their ends prove that they had also been put to a secondary use as hammer stones. One oblong flat hammer stone (Mus. no. 1-18575*a*) is only 48 mm. in length and weighs 1.6 ounces. Such a hammer stone could only be used in very light work, such as breaking up flint, or perhaps in fashioning implements by pecking. Two larger hammer stones (Mus. nos. 1-18515 and 1-18575*b*) are similar in shape and size to that shown in plate 17, figure 6, being 123 mm. long. The heaviest weighs 13.4 ounces.

Anvil or Mortar.—No mortars, either whole or fragmentary, were found, except one fragment of an irregular flattish stone showing a shallow mortar-like depression at least nine centimeters in diameter. This may have been either an anvil or a stone used as a mortar in connection with a basket hopper.

Problematical Stone Object.—One object was found whose use is not known, but which might be regarded as an ornamental pendant. Its description follows:

Museum no. 1-18118 (pl. 17, fig. 5), found with human remains no. 14. Length 71 mm., breadth 38 mm., thickness 20 mm. Edges show rough pecking marks, but the flat sides are well polished, which would lead to the belief that it had been used as an abrading implement or smoothing stone, such as is employed in pottery making, were it not for a mark at one end made apparently to accommodate an encircling string.

Objects of Steatite and Slate

The objects made of steatite and slate are not numerous. They include two pipes, a fragment of a steatite dish, three slave-killers, and four fragments of slave-killers.

Stone Pipes.—One clay pipe was obtained, which will be described under another heading, and two pipes made of steatite. The description of the stone pipes is as follows:

Museum no. 1-18038 (pl. 17, figs. 1a and 1b), found in association with human remains no. 2. Length 240 mm., diameter 24 mm. Museum no. 1-18239 (pl. 17, fig. 2), found with human remains no. 19. Length 108 mm., diameter 22 mm.

These pipes show great extremes in length, but are in no respect different from the majority of stone pipes found in northern California among the modern Indians. There are at least two species of tobacco indigenous to northern California, *Nicotiana bigelovii* and *Nicotiana attenuata*, both of which were used by the Indians. The Spanish discoverers of Trinidad bay said that the Indians "used tobacco, which they smoked in small wooden pipes, in form of a trumpet, and procured from little gardens where they planted it."²⁷⁹

Stone Dish.—A fragment of a steatite dish (pl. 16, fig. 6), found at a depth of 2½ feet, had at some time been subjected to so much heat that it had changed from its original condition of softness to one of extreme hardness, with the result that it was with some difficulty recognized as being made of steatite. The dish was well shaped inside and out, having a maximum thickness of 22 mm. Before being broken it must have had a diameter of some 20 or 25 centimetres. Steatite dishes, generally elliptical in form, and having a long diameter of from two inches to over two feet, are quite common in the lower Klamath river region.

Slave-killers.—Plate 18 shows several objects belonging to a class of implements variously described as batons, war-clubs, stone hatchets, battle axes, tomahawks, and slave-killers. Though there is such a great diversity of forms throughout North America, these objects should all be regarded as only modifications of one fundamental class of implement used either for killing or in ceremony. If an exhaustive study of the subject could be made, it is possible that intermediate forms could be found to connect the more eccentric types. On the Alaska coast and southward, where slavery was an established institution, certain clubs have been designated as slave-killers. Niblack

²⁷⁹ Don Antonio Maurello, *op. cit.* (see footnote 27 of present paper), Barrington edition, p. 489.

describes the killing of slaves in southern Alaska, especially in the region of the Queen Charlotte islands, in the following words:²⁸⁰

Simpson estimates that in 1841 one-third of the entire population of this region were slaves of the most helpless and abject description. . . . Slaves did all the drudgery; fished for their owner; strengthened his force in war; were not allowed to hold property or to marry; and when old and worthless were killed. The master's power was unlimited. . . . In certain ceremonies it was customary to give several slaves their freedom; but at funerals of chiefs, or in ceremonies attending the erection of a house by a person of consequence, slaves were killed. Slaves sacrificed at funerals were chosen long before the death of their master and were supposed to be peculiarly fortunate, as their bodies attained the distinction of cremation, instead of being thrown into the sea. Simpson (1841) says of Chief Shakes at Wrangel, that he was "said to be very cruel to his slaves, whom he frequently sacrificed in pure wantonness, in order to show how great a man he was. On the recent occasion of a house-warming, he exhibited, as a part of the festivities, the butchery of five slaves." . . . The practice of killing slaves in ceremonies and for reparation in quarrels was quite common. . . .

Slave-killers.—These are ceremonial implements formerly used by the chiefs in dispatching the slaves selected as victims of sacrifice on occasions of building a house, or on the death of a chief or other important personage. . . . The pointed ends were driven by a quick blow into the skull of the victim, whose body was accorded special consideration in burial. They seem in general to have been made of bone, or of wood tipped with stone. Naturally, with the advent of the whites, this custom has had to be abandoned, and these implements have, in time, become very rare.

The institution of slavery, though developed to the greatest extent in southern Alaska, existed among all the northwest coast Indians as far south as the Klamath and the head waters of the Sacramento.²⁸¹ Of slavery among the Indians of Cape Flattery on the coast of Washington we have the following account:²⁸²

In former times, it is said, the slaves were treated very harshly, and their lives were of no more value than those of dogs. On the death of a chief, his favorite slaves were killed and buried with him, but latterly, this custom seems to have been abandoned, and their present condition is a mild form of servitude. The treaty between the United States and the Makahs makes it obligatory on this tribe to free their slaves, and although this provision has not thus far been enforced, it has had the effect of securing better treatment than they formerly had.

John Dunn, for eight years connected with the Hudson's Bay Company, describing burial customs at the mouth of the Columbia, says:²⁸³

²⁸⁰ A. P. Niblack, *op. cit.*, pp. 252-253, 275, pl. 46, summarizing and quoting Sir George Simpson (governor-in-chief of the Hudson Bay Company's territories), *Narrative of a Journey Round the World During the Years 1841 and 1842* (London, 1847), I, 211-213, 242-243.

²⁸¹ H. W. Henshaw, *Bur. Am. Ethn.*, Bull. 30, part 2, p. 598, 1912.

²⁸² J. G. Swan, *The Indians of Cape Flattery*, p. 10, 1868 (*Smithsonian Contributions to Knowledge*, xvi, 1870).

²⁸³ John Dunn, *op. cit.* (see footnote 183 of present paper), p. 86.

On the death of one of these people, the body was formerly wrapped in skins or mats, and deposited in a small canoe.... On the death of a chief or other person of wealth or importance, one or more of his slaves (much of an Indian's importance depending on the number of his slaves) was put to death.... But this barbarous superstition has been abolished through the interposition of the Company.

When an important person died on Coos bay, 170 miles to the north of Humboldt bay, "formerly the body was burned, and the wife of the corpse killed and interred."²⁸⁴

Though our findings are hardly sufficient to warrant us in making any positive declaration that the institution of slavery and human sacrifice formerly existed as far south as Humboldt bay, yet we feel we owe it to the reader to state such facts as would point in that direction and then leave it to future investigation to prove or disprove the proposition. We find southern Alaska to be the center of a culture area characterized by a high development of certain arts and institutions, such as carving, canoe making, building of excellent plank houses, an aristocracy of wealth, slavery, and human sacrifice. As we proceed south from the center of this type of civilization, all of these arts and institutions gradually become less marked in their development and cease entirely when Cape Mendocino is reached. Now, the argument might be made that, as most of these arts and institutions existed to a greater or less degree among the modern Indians of the Klamath river and Humboldt bay regions, there is, at least, a possibility that they all existed in a more or less developed form in the past.

Whether slavery and human sacrifice really existed or not, there are implements found on Humboldt bay similar to those from the Columbia river and northward described as war-clubs or slave-killers. The following is a general summary of the facts published by Smith²⁸⁵ regarding this class of implement:

Forty-four specimens of clubs made from the bones of whales (practically all the specimens of which Smith was able to gain any information; illustration of one of these from Barclay sound, Vancouver island, is reproduced on plate 19,

²⁸⁴ W. V. Wells, *Wild Life in Oregon*, Harper's Magazine, 1856, p. 602, a narrative of a four months' sojourn in the vicinity of Coos bay. Formerly, from Coos bay to Alaska, slaves, or sometimes even friends or relatives of an important person, were killed upon his death. For the following tribes see Bancroft's Works: Kadiak island, 1, 86; Nootka, 1, 205; Chinook, 1, 240, 248; Wallawalla, 1, 288; Coos bay, 1, 248. Of the Chinook, Bancroft says: "Many instances are known of slaves murdered by the whim of a cruel and rich master, and it was not very uncommon to kill slaves on the occasion of the death of prominent persons, but wives and friends are also known to have been sacrificed on similar occasions."

²⁸⁵ H. I. Smith, *Archaeology of the Gulf of Georgia and Puget Sound*, Mem. Am. Mus. Nat. Hist., IV, 1907; *Archaeology of the Yakima Valley*, *op. cit.*

figure 6) do not vary greatly in their size and proportions, averaging about 21 inches in length by $2\frac{3}{4}$ inches in width and having a lenticular cross-section. About two-thirds of them have the handle carved to represent the head of the eagle or thunder-bird surmounted by a bird head-dress, while the blade is decorated with line and scallop designs, dot designs, or triangular incisions which according to the interpretation of modern Indians indicate feathers. Ten specimens have their blades incised to represent a human head. The hair is usually represented as being very much disheveled, as it would be in a head-hunter's trophy. Some of these bone clubs were collected by early explorers and are now in European museums with insufficient data, but most of them seem to have come from the west coast of Vancouver island, a few from near Victoria, a few from Neah bay, Washington, and several from the mainland of British Columbia, while three which do not differ in type from those farther north came from the Columbia river.

Twenty-five stone clubs have a blade lenticular or lozenge-shaped in cross-section and are of much the same form as those made from the bones of whales, except that in general they lack the carved handle and other decoration. About forty per cent of these clubs came from Puget sound and northward as far as the vicinity of Vancouver, and about forty per cent are from the Columbia river drainage area. One came from the coast of Oregon, and two were probably from Klamath river valley.

The third type of implement of the war-club class consists of ten stone objects having somewhat the form of an animal with a head, one or two legs, and a long tail. Six of these are reproduced in outline on plate 19. Four specimens of this type which are now in the Peabody Museum of Harvard University are supposed to have come from the Klamath river region. The provenience of the others is more definitely known, one coming from Poormans Bar, Scott river, Siskiyou county, California, one from Shovel Creek Springs, on Klamath river twenty miles west of Klamath lake, two from Willamette slough, Columbia county, Oregon, one from near Tacoma, Washington, and one from near Vancouver, British Columbia.

Smith also illustrates several objects more or less pestle shaped but much elongated. Similar objects are commonly found in Pacific coast museums sometimes labelled as pestles, sometimes as phallic symbols, and sometimes as war-clubs.

As for the type of club made from the bones of whales, none are known to occur in California,²⁸⁶ but stone clubs of similar shape are found in the Humboldt bay (text figure 15) and Klamath river regions. There are three of these made of steatite at the University museum. They were obtained from the Yurok Indians. One of these (no. 1-1570) is shown on plate 18, figure 4. It is 423 mm. long, 75 mm. wide, and has a maximum thickness of 24 mm. Its weight is 940 grams (35.2 ounces). The incised zigzag lines on its sides suggest the scallop designs which have been interpreted as feathers on the bone clubs (cf. pl. 19, fig. 6). The two dots may possibly

²⁸⁶ One exception might be made in the case of a war-club which was made of a whale's jaw and which came from Santa Rosa island off the coast of southern California; but the form of this object is really quite different from those of the north. See illustration in W. K. Moorehead, *Prehistoric Implements* (Cincinnati, 1900), p. 233.

represent the eyes of a human face. This interpretation is in line with the general degeneration of art in northwestern California as compared with that farther north. Neither sculpture nor realistic designs are known to occur in northwestern California, although geometric designs are commonly incised on elk-horn purses, elk-horn spoons, bone objects, the handles of mush stirrers, and the like.

The type of stone club having the form of an animal was well represented in the excavation on Gunther island, there being three whole specimens and four fragments. Plate 18, figures 1a-1c, shows one of the specimens (no. 1-18231) found in association with human remains no. 19. It is made of steatite, is 415 mm. long, 132 mm. wide at the position indicated by the arrow, and has a maximum thickness of 24 mm. It weighs 867 grams (30.6 ounces). The object is shaped much like an animal, with a head, ears, front and hind leg, and a long tail. The legs are lenticular in cross-section and have a maximum thickness of 14 mm. A cross-section taken through any part of the head, neck, or body would be wedge shaped. The end of the tail for about half of its length is more nearly lenticular in cross-section, rounded at the lower edge but flattened at the upper. There is a groove reaching from the ears to the middle of the tail. The whole specimen has a smooth black polish except for about half of the tail. This is of a slate color and has rough scratches at various angles, the marks made in the process of manufacture not having been smoothed out by polishing. In addition to the finer marks there are many deep scratches arranged vertically. It is possible that the tail had wrappings at one time. This theory would account for the lack of polish, for the lighter color, and for the vertical marks, which would serve to keep the wrappings from slipping.

The specimen is not uniformly black, as there are several patches having somewhat the appearance of blood stains. These are poorly shown in the photographic reproduction, but the form of the patches can be seen in text figure 3. If the object had been used to kill a person and had then been immediately thrown into the flames, clots of blood might have served to protect the stone from the heat so as to cause an alteration in color in spots as they appear in the specimen. However, the alteration in color is not necessarily due to fresh blood, for if during cremation the juices of the body had come in contact with the object, the effect might have been much the same.

The close resemblance of this specimen to the one found on Scott river and to those from Willamette slough will be noticed (cf. pl. 18,

figs. 1a-1c, with pl. 19, figs. 2 and 3). All have grooves along the back. Whether the object of this type had one or two legs seems to have been immaterial, as both forms were found at Willamette slough.

The second complete specimen of slave-killer (no. 1-18093, pl. 18, figs. 2a-2b) was found in association with human remains no. 14. It has a length of 320 mm., a width of 65 mm., and a thickness of 13 mm. It weighs 402 grams. It is made of steatite, but is not so highly polished as the first specimen. The legs are very short, as in the specimen from Shovel Creek Springs; the sides are nearly parallel throughout the whole length of the specimen; and there is no groove in the back. There is a spot or two of stain on the head and neck of the specimen similar to those described in the first specimen.

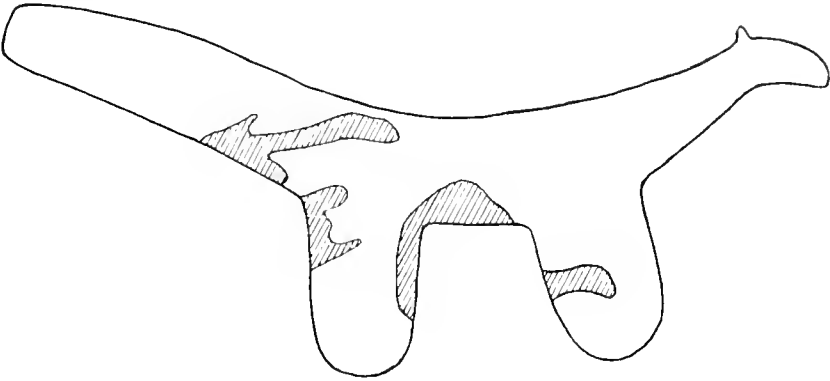


Fig. 3. Slave-killer from site 67 showing stains. No. 1-18231.
About one-quarter natural size.

The third complete specimen of slave-killer (no. 1-18018, pl. 18, figs. 3a-3b) is apparently a miniature toy weighing only 9 grams (.3 ounce). It was found with human remains no. 4. It has a length of 54 mm., a width of 20 mm., and a thickness of 7 mm. The close similarity of this object to the one from Scott river will be seen in the longitudinal groove along the back and forehead, and also the incisions at right angles to the groove. The encircling groove at one end shows that it was intended for a pendant. Two of the smaller specimens which presumably came from the Klamath river, are perforated at the handle end so that they might be suspended by a cord or thong.

One fragment of steatite about four inches in length was found at a depth of nine inches. It has a closely similar form to the handle end of the specimen first described. Three other smaller fragments

of slate found at depths of less than three feet are also probably portions of slave-killers.

When an account is taken of the objects indicative of wealth or rank found with human bones, such as ceremonial blades of red obsidian, black obsidian, and white flint, steatite pipes, slave-killers, and dentalium shell, it would appear that the persons of most importance would be, in order: nos. 19, 9, 14, 4, 12, 1, 2. Hence, the slave-killers are seen to be associated with the most wealthy. Now, a reference to plate 12, figure 3, and to the notes on the various human remains, will show that skeletons nos. 19 and 9 were surrounded by a single continuous charcoal bed. The same can be said of nos. 4, 3, and 2. But if in these cases of two or more persons appearing to have been cremated at the same time, one is the sacrificed slave, it is impossible to say which is the slave and which the master, because the artifacts with the one are about as important as those with the other.

Inasmuch as the Pacific coast forms of war-clubs or slave-killers are but little known and but partially described, it might be well to take up the subject where Smith left it and add to the present knowledge by mentioning a few other specimens, which should perhaps be regarded as belonging to the war-club class of implements.

A specimen (no. 1-15141) in the University museum from Santa Catalina island, southern California, has at least a superficial resemblance to a miniature slave-killer, as appears in the outline drawing, text figure 5. This object has a length of 91 mm., a width of 51 mm., and a thickness of 18 mm. Its small size should not necessarily prevent it from being called a slave-killer, since there are several miniature representatives of this ceremonial implement from the north, but at the present stage of our knowledge it would be much safer to consider it merely as a crude figure of an animal with only an accidental semblance to a slave-killer. This hypothesis is strengthened by the fact that several well made figurines of the fin-back whale and other animals have been found on the Santa Barbara islands, while specific resemblances to the culture of northwestern California are lacking or at least very scanty.

The Memorial Museum of San Francisco has a specimen, shown in outline in text figure 4, which appears to be related to the type found on Gunther island. It is 211 mm. long, 105 mm. in greatest width, and 33 mm. in greatest thickness. It was unearthed from a depth of 18 (?) feet at the Doggett mine on the banks of the Klamath river near Walker, Siskiyou county, some ten or fifteen miles above the

mouth of Scott river. The specimen gained some notoriety from a newspaper article,²⁸⁷ which is in substance as follows:

In a pocket of sand and gravel which was believed to be an ancient channel of the Klamath river, and which was fully 200 feet from the present bed of the river, at a depth of 18 feet below the surface of the ground, were found three large teeth belonging to one of the great "lizard," or "dinosaur," or "mastodonic species." There was also a tusk, 7½ feet long and 14 inches in diameter at the butt, which was so badly decayed that it fell to pieces when touched. Above the specimens were oaks five to six feet in diameter, and on bedrock 12 feet below the specimens were trees turned to coal or partly petrified. "Close to the teeth was found an ancient stone hatchet, which is believed to belong to a period co-existent with that in which the animal to which the teeth belonged is believed to have lived. . . . Was there a fight and the stone ax, being indigestible, all that is left of the man?"



Fig. 4. Slave-killer from the Klamath, 10 to 15 miles above the mouth of Scott river. Memorial Museum, San Francisco, no. 38899. One-quarter natural size.

Fig. 5. Stone object from Santa Catalina island. No. 1-15141. One-half natural size.

The teeth are in the Memorial Museum with the stone ax, and are identified as belonging to the mastodon, *Mastodon americanus*. Owing to the obviously emotional and unscientific character of the accompanying information, little significance can be attached to the reported association of the club with the fossil bones. It is to be regretted that when such discoveries are made there is too often no careful archaeologist present to take measurements of depths and make full notes of the circumstances.

Schumacher²⁸⁸ found with a skeleton at Chetko, Oregon, eighty-five miles north of Humboldt bay, an implement of bone broken to fragments but apparently shaped much like another implement "made of dark stone and nicely polished, which was found at Happy Camp [on the Klamath twenty-five miles below the mouth of Scott river] at a depth of 40 feet below the surface." Schumacher's drawing of this latter specimen reveals a form closely similar to the one from Gunther island shown in plate 18, figure 2*a*.

²⁸⁷ San Francisco Chronicle, June 7, 1911.

²⁸⁸ Paul Schumacher, Remarks on the Kjökken-møddings on the Northwest Coast of America, Ann. Rep. Smithsonian Inst. 1873, pp. 354-362 (1874).

W. K. Moorehead, in his *Prehistoric Implements* (p. 292), gives a figure of a slave-killer from Siskiyou county, California, which until the fire of 1906 was in the possession of the California Academy of Sciences at San Francisco. It is described as being made of hard black stone having the dimensions of two by sixteen inches, though the proportions of the figure do not correspond to these dimensions. Persons who remember seeing the specimen say that the figure must have been made from a very inaccurate free hand drawing. The same author in his second volume of the *Stone Age in North America* (p. 105), gives illustrations of two slave-killers in the possession of a resident of Albany, Oregon. Both of these specimens, which are shaped much like text figure 4, apparently came from "not far above the mouth of the Columbia river."

Several specimens of slave-killers are described by G. G. MacCurdy.²⁸⁹ Two of these in the possession of Yale University Museum are from the John Day river drainage area, probably Grant county, Oregon. A third specimen in the Yale University Museum is probably from Gilliam county, Oregon, about fifty miles above the mouth of John Day river. The National Museum has a cast of a fourth specimen found near St. Helens, mouth of Willamette river, Columbia county, Oregon. The fifth specimen, also in the possession of the National Museum, is most interesting as being from Wintun territory near Weaverville, Trinity county, California, over sixty miles due east from Humboldt bay.

Robert Gunther has found on site 68 one or more specimens of slave-killers, which have, however, been disposed of without his remembering just where they went. This completes the list of all known specimens of this type, at least twenty-eight in all, which can be said to range from Humboldt bay to as far north as Vancouver, British Columbia. Some of the specimens from Gunther island resemble so closely specimens from the Columbia river that they can be said to be practically identical; yet the form is so frequent both in California and in Oregon that it would be unwarranted to infer that the pieces were made in a northern locality and carried to California in trade, or vice versa. We must assume that so far as these implements are concerned one set of customs covered the region from Humboldt bay to Puget sound and perhaps took in the drainage areas of the Klamath, Trinity, John Day, and Des Chutes rivers, and part of the Columbia valley.

²⁸⁹ G. G. MacCurdy, *The Cult of the Ax*, in W. H. Holmes Anniversary Volume, pp. 301-315, 1916.

On plate 19, figure 8, there is shown an implement of the war-club class from Chilkat, Alaska,²⁹⁰ about 850 miles to the north of Vancouver. Though this was perhaps put to the same use as those objects which we have described as slave-killers, it should be considered as being the product of an independent development, so far as its form is concerned, and perhaps no more related to the typical slave-killer than are the monolithic hatchets from the eastern states, one of which from central Alabama, is shown for comparison on plate 19, figure 9.

There are on the Pacific coast quite a variety of flat, sword-shaped ceremonial implements,²⁹¹ as well as a few peculiarly shaped cylindrical implements, sometimes called pestles but more often phallic symbols²⁹² or war-clubs. These would undoubtedly make a very interesting study could the different types be brought together and compared and their significance ascertained. One form of stone club from site 9 and another from Scotia will be described below.

Chert Refuse, Cooking Stones, etc.

Chert.—There were a great many pebbles of chert from the size of a bean to the size of a fist found throughout the mound. These were thrown into a heap as they were unearthened and a few samples taken to the museum. They were probably used as cooking stones, as hammer stones, and as material for the making of implements.

Chert Fragments.—About seven pounds of small chert fragments, appearing to be the refuse from implement making, were brought to the museum. These fragments are of all colors, as described on page 279. If these fragments are really the refuse from implement making, it might very properly be asked where the finished implements are. Only one scraper (pl. 15, fig. 5), one drill (pl. 14, fig. 14), four knives (pl. 13, fig. 5), and five arrow-points (pl. 14, figs. 2 and 3), made of typical chert, were found at site 67, though thirty-four

²⁹⁰ H. I. Smith, *Archaeology of the Gulf of Georgia and Puget Sound*, *op. cit.*, pp. 418-420.

²⁹¹ See W. K. Moorehead, *Prehistoric Implements*, pp. 233, 292-293, for illustration of specimens from Siskiyou county and elsewhere.

²⁹² H. H. Bancroft, *Works*, III, 508, 1883, quotes D. G. Brinton, in *Schoolcraft*, *Arch.* v, 416-417, as saying: "The pretended phallic worship...rests on no good authority, and . . . is . . . nothing but an unrestrained and boundless profligacy which it were an absurdity to call a religion. . . . There is a decided indecency in the remains of ancient American art . . . but the proof is altogether wanting to bind these with the recognition of fecundating principle throughout nature, or, indeed, to suppose for them any other origin than the promptings of an impure fancy." Bancroft does not agree with the conclusions of Brinton, but makes no attempt to establish the existence of phallic worship anywhere in America except in Central America and southern Mexico. See also W. K. Moorehead, *Prehistoric Implements*, p. 288.

chert implements were obtained on site 10 and some from other sites. A few flakes of chert were found at site 67 in apparent association with six different human remains, but as the fragments were so common the association may have been accidental. There is no reason why some of the rough flakes of chert would not have served as scrapers or knives just as effectively, at least for some uses, as the most perfectly chipped implements. Why, then, should the inhabitants have expended unnecessary labor in making the perfect implement for daily purposes, especially when there was the chance of breaking it in use? Many just such chert fragments occur in the mounds at San Francisco bay and are described and illustrated by Uhle.²⁹³

White Flint.—Twenty fragments of white flint were found in association with human remains no. 1, and half a dozen fragments in other situations.

Obsidian.—Not a single fragment of obsidian refuse was found here or anywhere in the whole Wiyot area although the great majority of chipped implements were made of obsidian.

Quartz.—About a dozen pebbles of quartz from the size of small bird's eggs to that of apples, and about forty fragments, were brought to the museum. No use is known for these, other than as cooking stones and hammer stones.

Agates.—Four agates, an inch or an inch and a half in diameter, were found in one place at a depth of two feet.

Sandstone.—Skeleton no. 1 had in association with it an irregularly shaped sandstone boulder a foot in length, while with no. 19 were several oval sandstone boulders from five to nine inches in diameter. If the latter had been a little larger, they might have been considered material brought to the mound for making mauls or other implements. During the field work no particular attention was paid to the exact number of cooking stones, pebbles, and fragments of sandstone. Only a dozen were brought to the museum, but it is not probable that many were left behind.

Steatite.—Less than a dozen small stones and stone fragments are doubtfully considered to be steatite. Positive identification by scratching with a knife is difficult because the stone becomes so hardened by fire that it loses its original characteristics. About half of the stones identified as steatite were in association with human remains. Probably no example of this material escaped the notice of the writer while in the field.

²⁹³ Max Uhle, present series, vii, 61, pl. 6, 1907.

Objects of Clay

The objects made of clay include part of a clay pipe and 137 elliptical balls. Their distribution in the mound can be determined by referring to tables 5 and 6.

Clay Pipe.—In association with human remains no. 19, there was a fragment of a clay pipe (pl. 20, fig. 4), 48 mm. in length and 31 mm. in diameter. The bowl has been baked to a good degree of hardness, is symmetrical, and has a maximum inside diameter of 15 mm. and a depth of 25 mm. The inside of the bowl is blackened, while the outside is blackened and polished in places as if it had seen use; yet the fractured end is crumbly, and adjacent to the fracture was an irregular mass of clay scarcely baked at all. One side of the unbaked clay was adhering to a rib. The nearest locality where even the crudest of pottery is known to have been made is in the vicinity of Fresno, nearly 400 miles to the south-southeast of Humboldt bay.²⁹⁴

Elliptical Clay Balls.—Four different forms of elliptical clay balls are illustrated in plate 20. There were a total of 137 of these, counting a few in more or less fragmentary condition: 92 in association with human remains, and 45 scattered throughout the trench at depths ranging between 1 and 51½ feet.

Plate 20, figure 2, shows the type which is most common. The most remarkable thing about this type is that there are so many specimens having nearly the same size and shape, with just enough individuality to prove that they were not pressed in a mold. As already mentioned on page 348, these clay balls furnish some possible evidence as to the age of the mound. Hence, they will be described in considerable detail.

In association with human remains no. 14 there were 56 specimens, which have an average length of 45 mm. while the variation in length is only 3 mm. (43-46). To this number could be added 9 fragmentary specimens, also found with remains no. 14, which probably had a similar length before being broken. Of these specimens, 50 complete ones showed a difference in weight, between the largest and smallest, of only 4.4 grams, the average weight being 34.4 grams.

With human remains no. 12 were 12 balls whose average length is 45 mm. and whose extreme variation is only 2 mm. However, though the length of these specimens averages the same as the preceding, their weight was somewhat less, averaging 29.5 grams.

There was a like specimen with remains no. 19 and another with no. 15.

The balls found with human remains are with but few exceptions of a black color, very hard, and in perfect condition. Those scattered through the trench

²⁹⁴ Paul Schumacher, Ann. Rep. Smithsonian Inst. 1873, p. 354 (1874) found a fragment of a clay pipe at Chetko, Oregon, eighty-five miles north of Humboldt bay.

are seldom black, but usually reddish or yellowish, are less perfectly baked, and are more frequently in a fragmentary condition. However, there seem to be 16 of the scattered specimens which should be considered as being of the same size and form as the one shown in figure 2. This makes a total of 95 specimens having the same form and nearly the same size, found at depths ranging from 1 to 5½ feet. All of these are such close duplicates that one could not be distinguished from another except by color and by the closest inspection and measurement with calipers.

One other elliptical clay ball, from a depth of 3¼ feet, is of the same form as figure 2, but is just enough larger than those described—49 mm. in length and 42.2 grams in weight—to give it a distinct individuality in appearance.

Figure 3 shows a second type of clay ball, differing from the form just described in having pointed instead of rounded ends. There are only three or four specimens of this type. These were found at depths of 3½ to 5¼ feet. The one illustrated is the most perfect specimen and is 54 mm. in length.

Figure 1 shows a clay ball much smaller in size than the types already described. There are fifteen specimens comparable in size with the one illustrated. Four of these were in association with human remains no. 14, one with no. 10, and one with no. 12. These fifteen varied somewhat in form, some having pointed ends, and some blunt ends. There is also a considerable variation in length, the range being from 29 mm. to 38 mm.

Figure 5 shows the smallest specimen of clay ball, which is 23 mm. long and has a more oval form than the types previously described. There are two other specimens similar in size and shape, all found at the depth of about three feet.

Robert Gunther has obtained elliptical clay balls at site 68. He stated that he had heard an Indian describe a game which was played with them, but he had forgotten the account.²⁹⁵

The writer has obtained two globular clay balls, 34 mm. in diameter, and one elliptical clay ball, 44 mm. in length, shaped much like figure 1, from a cave near Humboldt lake in Nevada. According to a member of the Winnemucca band of Indians a game with clay balls was formerly played, one party burying them in sand while the opposing party guessed their position. A similar game at Humboldt bay might account for some of the streaks of sand found in the mound.

²⁹⁵ The Indians of Smith river and Rogue river region have a guessing game "played with small clay balls." Ida Pfeiffer, *A Lady's Second Journey Round the World* (New York, Harper, 1856), p. 318.

In the Trask collection from San Nicolas island, southern California, there are about thirty objects of sandstone, 35 mm. to 75 mm. in length. There is much variety of form, but two or three specimens quite closely approach in shape and size some of the clay balls from Humboldt bay. There are also sling shots from Guam, made of coral limestone, which resemble the clay balls from Humboldt bay. However, in both these cases the resemblance is in appearance only.

At the University museum there is an outfit consisting of a sling made of tule (*Scirpus* sp.) and twenty-four partially baked globular mud balls (Mus. no. 1-10604) such as were formerly used by the Pomo Indians of Lake county in killing ducks and mud hens. The set is a model made to order by an Indian living on Lower lake. A dozen of these specimens are quite uniform in size, with a variation of only 4 mm. in diameter, the average being 41 mm. The remaining balls are much more variable in size and though fairly symmetrical are not perfectly globular. There is a range in the weight of the twenty-four specimens of from 55 to 75 grams. Not only was there much less skill used in fashioning them than those found at Humboldt bay, but to all appearances they were so slightly baked that they would disintegrate if placed in water. The collector, S. A. Barrett, states in the museum catalogue that these balls are made of a whitish earth slightly baked near, not in, the fire, and that they were made in only a few places in Pomo territory. He also states that toys of various shapes modelled from clay or adobe and dried in the sun were much used by Pomo children in aboriginal times. On the whole, it can be said that there is no evidence that the Pomo ever made anything that even approached pottery, nor do the clay balls of the Pomo Indians in any way resemble those at Humboldt bay.

The museum, furthermore, has over two hundred clay objects from an earth mound near Stockton, California. These are mostly roughly globular, averaging about two inches in diameter. They are made of very poor sandy clay and imperfectly baked. A minority are dotted or incised with crude, simple patterns. What their use could have been can hardly be determined. If they were only a little firmer in texture, they might have served to take the place of stones in cooking, but to all appearances they would have disintegrated more or less if placed in water. There are no stones on the San Joaquin delta, but one would think that enough for cooking purposes could have been brought from a distance. Professor W. H. Holmes has mentioned these articles from the Stockton mounds, saying that "there are many

objects of baked clay, globular, discoid, dumb-bell shaped, etc., some of which may have served for use in slings.²⁹⁶ To this we would say that most of them seem to be too heavy.

Clarence B. Moore has also illustrated and described clay balls from Louisiana and southern Utah. Those from Utah were called gambling cones by the collector.²⁹⁷

Ferruginous Clays and Paint.—The beds of half baked clay of poor quality, found beneath human remains nos. 3 and 20, have already been mentioned on page 346. Some streaks in these beds, of a less sandy character than others, were baked to an orange red color, and could be pounded and used as paint. An ounce or two of ochre found at a depth of 51½ feet was in part of a cream color and in part baked to an orange red color. A flat, disk shaped lump, 12 mm. in diameter, of an orange red color, found at the depth of two feet, might have been paint. As no paint was found in association with human remains, all these cases may be considered as doubtful indications of its use. Probably the paint-like material was obtained together with the coarse clay as a mere accident. These baked clays are always of an orange color, never the bright red characteristic of the ochre (ferrous oxide, Fe_2O_3) which is so commonly found with human remains at San Francisco bay.

From the shape of some pieces of clay, it would appear that this material was sometimes used to batten the cracks between house planks.

Objects of Horn

The objects made of horn include thirty wedges and five harpoon heads. None of these were in association with human remains.

Wedges.—Wedges were found scattered throughout the trench at all depths to 51½ feet. There are two main types. The first type, represented by eighteen specimens, has the horn split and then smoothed off on the inner side so as to form a bevel. Most examples are rather short. Plate 21, figure 6, shows one of the smallest specimens, while figure 4 shows the longest piece of this type. All of these are quite certainly wedges, because the fibers of horn at the butt end of the wedges have been broken and bent to one side by repeated blows.

²⁹⁶ W. H. Holmes, Ann. Rep. Smithsonian. Inst. 1900, p. 177, pls. 26-28.

²⁹⁷ C. B. Moore, Some Aboriginal Sites in Louisiana and in Alabama, Jour. Acad. Nat. Sci., Phila., xvi, 16, 43, 72, 73, pl. 2, 1913.

The second type is represented by ten specimens. The tip of the horn is used, being as a rule bevelled only on one side, the other side not needing any artificial bevelling because of the natural curvature of the horn. In two cases small sized wedges are equally bevelled on both sides. There is a variation in length of from 77 mm. to 230 mm.

Most of the horn from which wedges are made is probably elk antler, but some of the smaller specimens may be deer horn. The elk-horn wedge of the second type described above was quite common among the modern Indians of northwestern California. It was used in splitting out house planks. Essentially similar wedges from Emeryville shellmound are illustrated on plate 8, figures 1 to 3, in volume 7 of the present series.

Harpoon Heads.—There are two types of harpoon heads. The first type is represented by three specimens, two found at depths of about three feet and the third obtained somewhere in the upper two feet when the sides of the trench were undercut. Two of the three are somewhat incomplete, but appear to be of the same form as the one shown on plate 21, figure 3, although slightly smaller. The object illustrated has a maximum thickness of 16 mm. and a length of 163 mm. to which should be added 8 or 10 mm. for the broken point. Whether the Indians at Humboldt bay, either ancient or modern, engaged to any great extent in seal hunting is not known. A more likely use to which these harpoon heads were put was in spearing what are popularly termed sharks, a kind of dog-fish. During the early years of the white settlement these fish were so numerous that twenty to thirty boats, two men per boat, found it a profitable business to spear them for their oil.²⁹⁸

A second type of harpoon (pl. 21, figs. 12*a*, 12*b*) is represented by two barbs of horn found at depths of 1 and 3¼ feet. This kind of harpoon head was used for spearing salmon by the modern Indians of the Klamath and Trinity rivers.²⁹⁹ In the modern harpoon the point is made of bone three or four inches long, at the upper end of which are adjusted two barbs made of bone identical in every respect to those found at Humboldt bay. The barbs and bone point are wrapped with twine made of iris fiber and covered with pitch. The barb illustrated has a length of 72 mm.

²⁹⁸ San Francisco Bulletin, July 3, 1857; April 28, 1858.

²⁹⁹ P. E. Goddard, present series, 1, 25, pl. 13, fig. 4, 1903.

Objects of Bone

There were eighty-three objects of bone obtained, nineteen in association with human remains, and sixty-four scattered throughout the trench. Nearly half of the objects are gouges or skin dressers. Other specimens include adze blades, awls, whistles, beads, head scratchers, a harpoon head, and miscellaneous or fragmentary objects. Table 9 shows the number and distribution of each of these classes of objects.

Bone Gouges.—Scattered through the trench at all depths to eight feet, were thirty-one bone objects, all more or less fragmentary, which we designate as gouges. In addition to these there were eight in association with human remains. Every one of these, so far as the fragmentary condition warrants an opinion, was made by splitting the proximal end of the cannon bone of the elk. One specimen is shown in plate 21, figure 1. There were only seven specimens which showed the original length of the implement. The length of these varied from 112 mm. to 160 mm.

A narrow type of gouge represented by four specimens, one with human remains no. 20, the other at depths of $\frac{3}{4}$, $2\frac{1}{2}$, and $3\frac{1}{4}$ feet, is also made from the proximal end of the cannon bone. Two specimens are shown on plate 21, figures 2 and 7.

Adze Blades.—There were only five objects, made from the larger limb bones of what is probably the elk, which are somewhat doubtfully classed as adze blades. These were found at depths down to $3\frac{3}{4}$ feet. Plate 21, figures 14 and 15, show two specimens. All of the pieces are more or less broken or dulled from constant use near the cutting edge. The upper end in every case has been cut off square. The length varies from 65 mm. to 90 mm. The Yurok Indians generally used the large mussel shell for adze blades.

Awls.—Two of the eight awls found were made by splitting the proximal end of the cannon bone. These were originally probably very long, but they are now too fragmentary to be illustrated. One awl was made from the humerus of a bird (pl. 21, fig. 8). The bones from which the others were made could not be identified. None of the awls were of excellent workmanship, except the one shown on plate 21, figure 9.

Three sting-ray barbs were found at depths of four and five feet. Whether or not these had been used as implements can not be stated. They have been found in San Francisco bay shellmounds in association with human remains.

Whistles.—The four whistles found in association with human remains had been calcined and are more or less fragmentary. Two specimens with human remains no. 9, as also the two shown on plate 20, figures 10 and 11, were made from the ulnae of large birds like the pelican or crane. Both of the latter had marks of incision made for decorative purposes. Figure 11 shows a design quite commonly made on bone objects from the Klamath river (cf. figs. 15, 16, and 17 of the same plate).

Bird Bone Beads.—Plate 20, figure 6, shows a bead 29 mm. long with some slight decorative incisions. It was found at a depth of only six inches. A second bead, made from the limb bone of a bird, was found at a depth of $1\frac{3}{4}$ feet and has a length of 65 mm.

Head Scratchers.—There are at the museum half a dozen thin, flat, bone objects from the Klamath river region catalogued as head scratchers and louse killers. Plate 20, figures 15 and 17, shows two of these objects obtained from the Yurok Indians. They have a thickness of 4 mm. and bear a decorative design characteristic of the region. Another specimen is described and illustrated by Goddard,³⁰⁰ who states that girls at the age of puberty are placed under restrictions for a period of ten days in regard to food, drink, and conduct. In order to avoid touching her face or hair with her hands during this period, a girl is given a piece of bone, which she wears suspended from her neck. Five objects which bear some resemblance to these head scratchers were obtained in the excavation on Gunther island. One is only a very small fragment. The others are shown on plate 20, figures 7, 12, 13, and 14. All are very thin, being only 3 mm. in thickness at most, and all except the one shown in figure 14 are flat on one side.

Figure 14 may be a hair pin (compare with figure 16 from the Klamath river), although it differs in form from the specimens previously obtained from this region, all of them being double pointed and varying in length from 80 mm. to 112 mm. The piece shown in figure 14 is single pointed and has a length of 73 mm. Some of the hair pins from the Klamath river are perforated in the center.

Harpoon Heads.—One bone harpoon head in a fragmentary condition was obtained at a depth of $2\frac{1}{4}$ feet (pl. 21, fig. 13). It seems not to be essentially different from the seal or shark harpoons made of horn, except that it is much smaller. A second fragmentary specimen, with the same form as shown in the upper portion of figure 3, is also considered to be part of a harpoon head.

³⁰⁰ *Ibid.*, I, 53, pl. 10, fig. 4, 1903.

Various Bone Objects.—In the table of bone artifacts (no. 9) other miscellaneous objects are listed. These include five specimens of cannon bones, probably from the elk, and six specimens of the limb bones of birds. Each of these has had one end cut off as the first stage in the manufacture of some article. Among the remaining miscellaneous objects was a knife-like fragment of bone with human remains no. 3, and two objects shown on plate 20. Figure 9 has some resemblance to a bead, but as it is solid, it could not be strung. Figures 8*a* and 8*b* give two views of a unique perforated bone object found at a depth of 4½ feet. The fragment has a length of 55 mm., a width of 26 mm., and a thickness of 11 mm. Its use is wholly problematical.

Objects of Shell

In table 10 every occurrence of the rarer species of shells is given, whether in an artifact or not, so long as there is reason to believe that the specimen was intentionally left with the dead. Thus one peeten shell, *Hinnites giganteus*, with skeleton no. 19, and another with no. 14, are not artifacts, yet they were in undoubted association with the interments. This was one of the rarest species found in the mound, occurring only thrice. The third example was found on the surface.

Dentalium.—*Dentalium preciosum* is a species of univalve living in the waters of Puget sound and northward, but so difficult to obtain that it was used as money by the Pacific Coast Indians from California northward. From the modern Yurok of the Klamath, its native name, allicochick, has been introduced into the English language of the region to about the same extent that in other parts of America the Algonkin name, wampum, has come to be understood as denoting shell beads. The small number of dentalia obtained in excavation on Gunther island may perhaps indicate that, in prehistoric times, trade relations with the north were not so extensive as within the past century. With skeleton no. 1 there were half a dozen small fragments, insufficient to make two complete shells. With remains no. 9 two small fragments were found. With no. 19 there were four complete shells and eighteen fragments. The complete shells have lengths of only 32, 33, 37, and 42 mm., and hence are not to be considered as having had great value, this being gauged according to length. Some of the specimens showed incisions, the designs of which are shown in text figure 6. Four of the shells are shown as they would appear if split

lengthwise on one side and then flattened out. Three specimens showed a design like that in figure 6*a*, and two specimens like that in figure 6*d*. Most of the dentalium shells among the Yurok of the Klamath river are decorated with pitch, snake skin, sinew, and feathers, while but few bear any marks of incision. However, one specimen at the museum has a design like that in figure 6*a*.

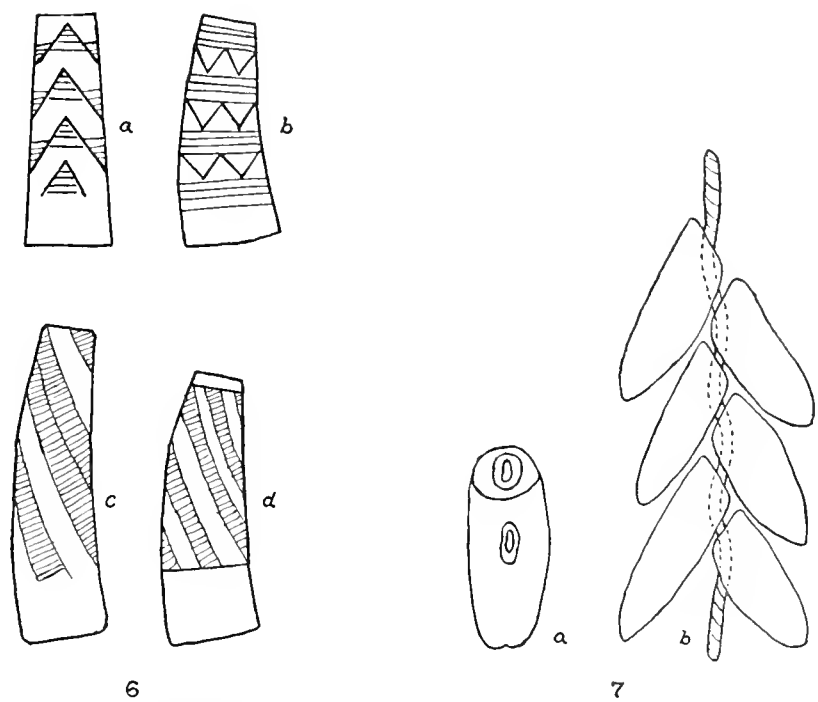


Fig. 6. Incised designs on dentalium shells found with human remains no. 19. Mus. no. 1-18243. Natural size.

Fig. 7*a*. Drawing showing perforations made in pine nuts for stringing. These beads were found in a carbonized condition with cremated human remains.

Fig. 7*b*. Drawing of a strand from a modern skirt from the Klamath river region, showing the same species of pine nut with identical perforations. Mus. no. 1-2333. Natural size.

Abalone.—With human remains no. 7 there were two rectangular pendants of abalone shell, almost identical in size, 103 mm. by 45 mm. (pl. 21, fig. 10). They were resting upon the clavicles. Body no. 18 had two pendants, one of which is shown on plate 21, figure 11. Remains no. 11 also had an abalone pendant. There was an ounce or two of abalone fragments with bodies nos. 9, 19, and 13. With the exception of one piece of abalone on the surface of the mound and the pieces just enumerated, no further traces of abalone were found.

Olive Shell Beads.—With interment no. 10 there was half a pint of medium sized beads of *Olivella biplicata*. Bodies no. 1 and 19 had a smaller quantity of small beads, while nos. 9 and 11 had only one or two beads. All of the beads consisted of the whole shell with a perforation at one end. Apart from the human remains five olive shells were found at various depths down to six feet. Of these, three had been perforated so as to make beads.

Carbonized Articles

Pine Nut Beads.—With each of the bodies, nos. 18 and 13, there were over two pints of carbonized pine nut beads. Smaller amounts of the same bead were found with six other human remains. The shell of each nut has a perforation in the larger end and another in the side through which a string could pass (see text fig. 7a). Nut beads of the same species, *Pinus sabiniana*,³⁰¹ are found on the skirts of Hupa and Yurok women, and are illustrated in volume 1, present series, plate 8, figure 2. In this illustration, however, the nuts are perforated at both ends. In another skirt from the Klamath river region (Mus. no. 1-2333), strands of string are covered with nuts bored like those from Gunther island. The manner in which the nuts are arranged upon the string is shown in text figure 7b. Though these skirts are a part of the female attire, it is not necessary to consider all the interments with pine nut beads as being the remains of females. A reference to table 5 and table 10 would show that about seventy-three per cent of all artifacts were with the bodies which also had pine nut beads.

Virburnum Seed Beads.—Skirts or aprons from the Klamath river region are often decorated with a small black nutlet, *Virburnum ellipticum*. These are illustrated by Goddard (present series, I, pl. 8, fig. 1). The same kind of beads were found in a carbonized condition at Gunther island with bodies 1, 9, and 19.

Basketry.—Some small fragments of twined basketry were found carbonized in association with human remains no. 9. A considerable quantity of light, porous slag along with the basketry may indicate that food had been burnt with the dead.

³⁰¹ The nuts upon Hupa and Yurok skirts as well as the nuts from Gunther island are large, being sometimes a full inch in length, and in consequence can not belong to *Pinus attenuata* (synonymous with *P. tuberculata*), as stated by P. E. Goddard (present series, I, 20), as this species produces very small nuts and is limited in its range, so far as the Klamath river region is concerned, to the tops of the highest mountains east of Trinity river—a distance of nearly fifty miles from Humboldt bay. On the other hand, *P. sabiniana* ranges westward as far as the redwood belt.

OBJECTS FROM VARIOUS SITES

Nearly one hundred artifacts were obtained from the surface of the ground at the surf-fishing camps, sites 10, 11, 12, and 13, while thirty objects were obtained as gifts from the owners of the land on which various other sites are located. These objects show some differences from those obtained at site 67.

SURF-FISHING CAMPS

Mention has already been made on page 279 of the large quantities of chert refuse found at the surf-fishing camps. Thirty-seven more or less fragmentary chipped implements were found on site 10 in this refuse. Thirty-four of these were made of reddish brown or greenish chert. Over half are very small fragments or incompletely worked specimens. While chipped implements were found only on the patches of ground designated as site 10, other objects of sandstone were found at all of the surf-fishing camps.

Scrapers.—There were five scrapers similar in shape to that shown on plate 15, figure 3. A second form of scraper, represented by one specimen of chert and one of white flint, is shown on the same plate in figure 1. Figure 2 shows a specimen made of black obsidian streaked with red. It was the only specimen of obsidian found at the surf-fishing camps, there being nowhere even a fragment of obsidian refuse. This specimen can be considered as either a scraper or a knife. Its edges are worn quite smooth by long use.

Drill.—A drill made of greenish chert and having an exceedingly attenuated point is shown on plate 15, figure 14.

Arrow Points.—Three arrow points of chert are shown on plate 15, figures 4, 7, and 8. Another specimen had a single notch in the base as shown in the piece from Gunther island, illustrated on plate 14, figure 6. Plate 15, figure 6, shows an arrow point made of white translucent chalcedony, while figure 8 shows one made of a mottled brown and gray chert. The latter is of a form having extra long barbs and serrated edges, such as are more commonly found at site 34.

Sinkers.—Forty-two elliptical or disk-shaped sinkers were found at the surf-fishing camps. All but one or two were made of sandstone, and were in general of about the same size as those already described from Gunther island (pl. 17, fig. 7). One of a larger size, 112 mm. in longest diameter, weighed 7.5 ounces.

Hammer Stones.—There were a dozen oblong pebbles of sandstone, varying from 65 mm. to 127 mm. in length and from 5.7 to 16.5 ounces in weight, which had marks upon their ends showing that they had been used as hammer stones. One of these is shown on plate 17, figure 6.

Problematical Stone Object.—Text figure 8 shows an object found at the surf-fishing camps by Dandy Bill and still in his possession. The object is about three inches long, and is shaped much like a maul. When questioned, Dandy Bill put on an air of mystery and stated that he knew what the object was, though he declined to tell.

MISCELLANEOUS SITES

Stone Club from Site 9.—When Mr. Clark purchased his farm at the bend of Mad river some twenty years ago, there was a club-like stone object at the farm buildings which presumably came from site 9, or at least from some of the sites of that vicinity. This object, which is shown in outline in text figure 9, has a length of $23\frac{1}{2}$ inches and a diameter at the base of $2\frac{1}{2}$ inches. It gradually tapers to within an inch of the top, where it has a diameter of $1\frac{3}{4}$ inches just below the head, which is 2 inches in diameter, and which has a small mortar-like depression in the top. It is not to be considered a pestle because of its slimmness, which would cause it to be easily broken. Besides, the base seems too round to serve to advantage for such a purpose.

There is at the museum a similar stone object, no. 1-14607, shown in outline in text figure 10. It is $28\frac{1}{4}$ inches long and $2\frac{1}{8}$ inches in greatest diameter. The upper part is somewhat elliptical in cross-section, having diameters of $1\frac{9}{16}$ and $1\frac{3}{8}$ inches just below the head. There is no sign on the base of its ever having been used as a pestle. Unfortunately, the only data we have regarding this rather unique specimen is that it is Californian, and forms part of a collection obtained from such widely separated regions as San Nicolas island of the Santa Barbara group and northwestern California. As it is so nearly like the object from Mad river, not only in shape but in the texture of the sandstone material from which it is made, there is a fair presumption that it may also have come from northwestern California, and that both are another form of the ceremonial war-club or slave-killer. Text figure 12 shows the outline of a medium sized pestle, while text figure 11 shows the longest pestle in the museum's collections from northwestern California, drawn to the same scale as the two stone clubs. These pestles are $18\frac{9}{16}$ and $26\frac{1}{8}$ inches in length

(see description, p. 362). Moorehead³⁰² gives an illustration of a Pomo pestle about 35 inches long; hence it would not be impossible on the score of length that these two club-like objects are pestles.

Pipe from Site 27.—Plate 17, figure 3*a*, shows the bowl of a pipe which is made of steatite and which was found by the family of Mr. W. J. Imme at site 27. It is similar to many modern pipes of the

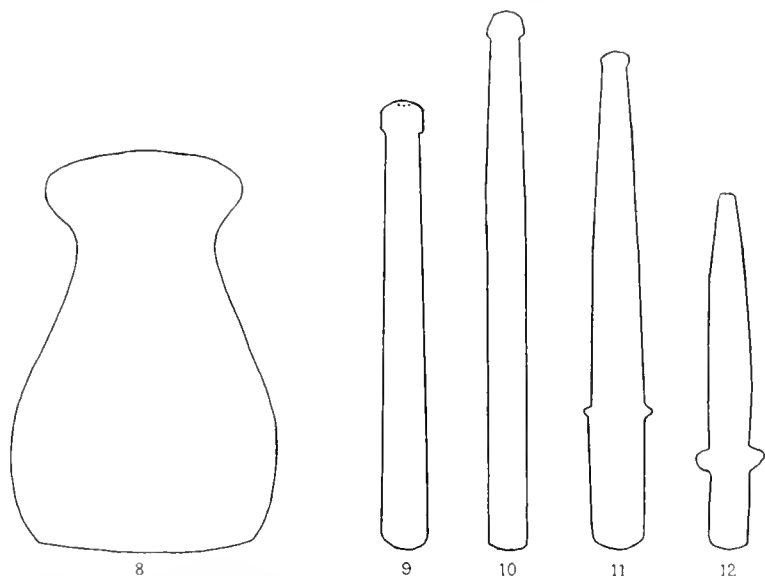


Fig. 8. Maul shaped object of unknown use found by Dandy Bill on site 10, 11, or 12. Two-thirds natural size.

Fig. 9. Stone club from site 9 (?). One-tenth natural size.

Fig. 10. Stone club from California, exact provenience unknown. No. 1-14607. One-tenth natural size.

Fig. 11. Pestle from Weitchpee on the Klamath. No. 1-11676. One-tenth natural size.

Fig. 12. Pestle from Hupa valley. No. 1-816. One-tenth natural size.

Klamath River region, which have a bowl of steatite and a wooden stem. Several of these are illustrated in volume 1, plate 17, of the present series.

Objects from Site 34.—Mr. C. S. Ellis, who has lived upon the land occupied by site 34 for twenty-five years, has in his possession a series of articles obtained from this site. They include several abalone pendants, seventy large red spherical glass beads each 21 mm. in diameter, and over thirty arrow points made of chert of varying colors, green, brown, red, drab, gray, and black. Some, especially the

³⁰² W. K. Moorehead, *Prehistoric Implements*, p. 290.

green ones, are transparent. Others are variegated in color, or speckled with gray and black. Text figures 13*a*, *b*, and *c* give the outlines of several of Mr. Ellis' arrow points, which are of unusually thin, delicate, beautiful workmanship, and have extraordinary long barbs.³⁰³ Some pieces of this type also have serrated edges. Text figure 13*d* shows another type, comprising half a dozen specimens, which have a cruder finish and but one notch in the base.

Objects from Site 43.—Mr. W. R. Lindsey has found quite a number of chert arrow points, serapers, and the like at site 43. One of these arrow points is shown on plate 15, figure 10. It reveals a manner of hafting not very common in the region.

Pestle from Site 54.—Plate 16, figure 2, shows a crude pestle, 220 mm. in length, obtained from site 54. It was made from a stone having a triangular cross-section, being roughly pecked at the angles.

Objects from Site 68.—Robert Gunther has obtained a considerable number of specimens from the shellmound at the center of the island on which he has his residence, as well as from the mound (site 67) at the northeast end of the island. Some of these pieces are now on exhibit in the Eureka Public Library. Among specimens which were disposed of in other ways, and whose whereabouts are now unknown, were one or two slave-killers from site 68. A dozen chipped implements of chert from site 68 were presented to the University of California. Of these, five are serapers having the same form as is shown in plate 15, figure 5; five others are drills, of which two are shown on the same plate, figures 13 and 15. Other objects found on site 68 include clay balls, as already mentioned, also a mastodon tooth which the Indians had doubtless brought from some of the fossil beds of the region.

Clay Object from Site 80.—Plate 17, figure 4, shows an object of clay found by the writer on site 80. One end is broken off, but the portion that remains has the following dimensions: length 115 mm., width 44 mm., thickness 21 mm. It has much the shape of a scythe whetstone, both sides being flat and the edges rounding. The clay from which it was made contained a considerable amount of iron, which makes the object very heavy. There is also a sufficient amount of sand to give it roughness, so that it is presumed to have been an abrading implement.

³⁰³ W. K. Moorehead, among the numerous illustrations in his *Stone Age in North America*, 1910, shows thirty or forty similar specimens from Oregon. As the present writer does not recollect seeing a like form elsewhere, he is inclined to regard it as an Oregonian type. If this hypothesis is correct the occurrence at Humboldt bay is only another case of cultural relationship with the north.

Objects from Site 99.—This site, half a mile from Hooktown slough and at an elevation of about 200 feet above sea level, furnishes arrow points at every plowing. Text figure 14 shows the outline of an adze handle which is in the Golden Gate Park Memorial Museum, San Francisco (no. 4619.L.), and which from the data with the specimen undoubtedly came from site 99 or its near vicinity. The handle has an extraordinary curve, and is made of finely polished sandstone. Altogether, this is the finest specimen of its kind the writer has seen.

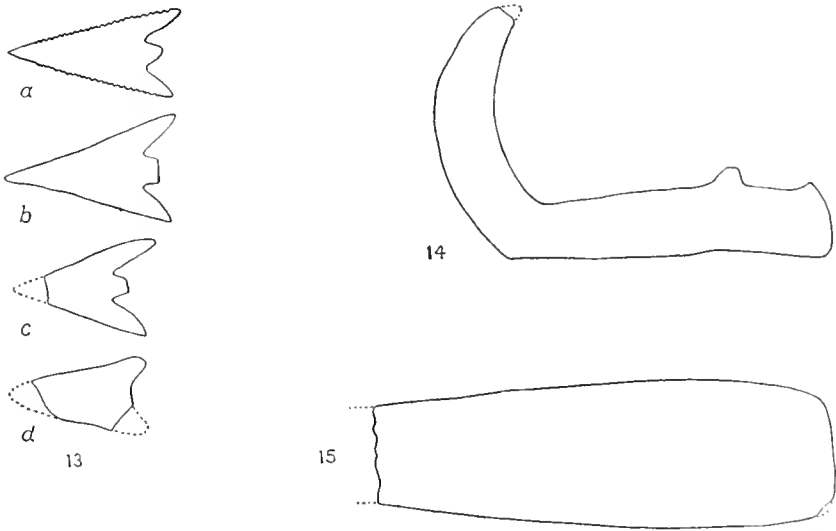


Fig. 13. Arrow points from site 34. Collection of Mr. C. S. Ellis. One-half natural size.

Fig. 14. Adze handle from site 99 (?). Memorial Museum, San Francisco, no. 4619.L. One-quarter natural size.

Fig. 15. Stone club from Scotia. Memorial Museum, San Francisco, no. 4622.L. One-quarter natural size.

Objects from Site 106.—Mr. William Phelan has plowed out a considerable number of chipped implements from site 106. Two specimens of red chert are long enough to be spear points. One, having an original length of about 105 mm. before being broken, is shown on plate 15, figure 9. A smaller object of brown chert, 48 mm. in length, which might be either a spear point or an arrow point, is shown on the same plate, figure 11. This is the only location in Wiyot territory where spear points are known to have been found.

War-club from Scotia.—Text figure 15 shows the outline of an implement of sandstone from Scotia, probably from the Sinkyone Indian village site given in the list of geographical names as tokênê-

wołok. The object is in the possession of the Memorial Museum, San Francisco (no. 4622.L). Part has been broken off, but the remaining portion has the following dimensions: length 245 mm., width 79 mm., greatest thickness 24 mm. It is not essentially different from the implements from the Klamath river region usually designated as war-clubs.

Ceremonial Stone Object.—One spear point (pl. 15, fig. 12), whose original length was probably about 58 mm., made of green chert, was presented to the writer by Dandy Bill, who did not remember where he got it. He said that his father used to make chipped implements but none of this kind, which is called *swutsuk* and is never made by Indians. The ground has pains, *siluk*, as people have them, and then the *swutsuk* come up out of the earth.³⁰⁴

SUMMARY AND CONCLUSION

The people speaking the Wiyot language, probably numbering about 1000 souls in 1850, occupied in historic times about 465 square miles of territory about the shores of Humboldt bay and the lower courses of Mad and Eel rivers. Of this former population there were left at the time of the 1910 census 58 full blood Wiyot, 13 persons partly Wiyot and partly of other Indian blood, and 81 individuals partly Wiyot and partly of white blood,³⁰⁵ making a total of 152. As there are only 11 persons of full Wiyot blood under the age of twenty, it is quite evident that the group will shortly be absorbed into the white population. At the present time all members of the tribe are held in quite general respect and esteem, being, to say the least, of fully average morality, industry, and intelligence. In fact, there are but two persons of Wiyot blood between the ages of ten and forty who are illiterate.³⁰⁶

Because of the dense forest environment, the principal food in the past was neither vegetable nor game, but fish and mollusks. As the

³⁰⁴ A. L. Kroeber in *Religion of the Indians of California*, present series, IV, 333, 1907, speaks of "pains" as being small, material, supernatural objects entering human bodies and causing disease. The disease is said to be cured by the shaman sucking the "pain" from the body, the "pain" then being exhibited to the patient as an assurance that he will recover.

³⁰⁵ *Indian Population in the United States and Alaska, 1910*, U. S. Bureau of the Census, p. 150 (1915). A member of the museum staff, returning from a trip to northern California just previous to the time of this paper going to press, says that five of the older Wiyot, including Dandy Bill and Tom Brown, our informants, have died during the past two years.

³⁰⁶ *Ibid.*, pp. 210, 224.

physical environment was the same in former as in recent times, the area occupied by the Wiyot people forms a convenient unit for both archaeological and ethnographical study. Within the limits selected, 172 village sites, both prehistoric and historic, were located.

Excavation in one of the principal ancient sites revealed the fact that in more recent times the inhabitants of the region buried the dead in a straight position upon the back, while previously cremation had been the rule. In material culture the former inhabitants resembled in the main the modern Indians of the Klamath River region. We would venture to place the center of the culture area on the Klamath river, perhaps near the mouth of the Trinity. To the south of Cape Mendocino none but the most meager of cultural resemblances are to be found, while in the opposite direction some resemblances occur even as far north as Puget sound.

We are best able to trace specific cultural relationship with the northern Indians through the implements called slave-killers, though whether or not these implements were really used to kill slaves at Humboldt bay must be left for future investigation to reveal. If we recognize a culture area based on the distribution of the slave-killer alone, we should find the area to take in Humboldt bay, Klamath river, Trinity river, John Day river, probably the Des Chutes river, the lower Columbia river valley, and Puget sound northward to Vancouver. The 28 specimens of this implement hitherto found in this area are distributed as follows: 8 from Gunther island, 9 supposedly from the portion of Klamath river occupied by the Karok and Shasta Indians, 1 from Trinity county in Wintun territory, 3 from John Day river in Shahaptian territory, 5 from Willamette slough and the lower Columbia river in Chinook territory, and 2 from Puget sound in Salishan territory. So far, then, as the present known number of specimens are concerned, the center would be on the middle Klamath.

From what little is known in other respects of the material culture of the Oregon Indians, principally those of the Columbia valley, we are able to see occasionally a hint of cultural relationship and it is expected that further researches will reveal other resemblances to the Wiyot.

TABLES

TABLE I

FOREST TREES OF THE WYOT TERRITORY

	Common size		Extreme size	
	Height	Diameter	Height	Diameter
PINE FAMILY				
Yellow-pine, <i>Pinus ponderosa</i>	60-200	2- 9	300 ^k	15 ^e
Digger pine, <i>Pinus sabiniana</i>	40- 50	1- 4	80 ^s	....
Sugar pine, <i>Pinus lambertiana</i>	80-250	2- 8	.....	18 ^s
Beach pine, <i>Pinus contorta</i>	10- 40	5-15*	200 ^k	....
Coast hemlock, <i>Tsuga heterophylla</i>	100-200	1- 4	.....	10 ^s
Tideland spruce, <i>Picea sitchensis</i>	80-200	3-20	300 ^e	30 ^e
Douglas spruce, <i>Pseudotsuga taxifolia</i>	100-250	4- 8	380 ^b	15 ^b
Lowland fir, <i>Abies grandis</i>	80-160	1- 3	300 ^e	6 ^e
Coast redwood, <i>Sequoia sempervirens</i>	100-300	5-15	380 ^b	33 ^b
Red cedar, <i>Tsuga plicata</i>	50- 80	1- 3	250 ^b	33 ^b
Port Orford cedar, <i>Chamaecyparis lawsoniana</i>	80-175	2- 4	200	12
YEW FAMILY				
Western yew, <i>Taxus brerifolia</i>	15- 40	1- 2	75 ^k	3 ^k
WILLOW FAMILY				
Nuttall willow, <i>Salix flavescens</i>	5- 25	9-18*	70	30 ^s
Velvet willow, <i>Salix sitchensis</i>	5- 25	3-10*	.....	12 ^s
Black cottonwood, <i>Populus trichocarpa</i>	30-100	1- 3	200	8
BIRCH FAMILY				
Red alder, <i>Alnus rubra</i>	40- 90	1- 2	100 ^e	4 ^e
OAK FAMILY				
Oregon oak, <i>Quercus garryana</i>	25- 50	2- 5	80	7 ^k
Black oak, <i>Quercus kelloggii</i>	30- 85	1- 4	100 ^k	8 ^k
Tan oak, <i>Pasania densiflora</i>	40-100	1- 4	150	6 ^k
California chestnut, <i>Castanea chrysophylla</i>	50-100	2- 6	150 ^k	9 ^k
LAUREL FAMILY				
Pepperwood, <i>Umbellularia californica</i>	40-100	1- 6	150 ^k	9
ROSE FAMILY				
Oregon crab-apple, <i>Pyrus rivularis</i>	15- 30	1 ^s	40 ^s	18 ^s
MAPLE FAMILY				
Big-leaf maple, <i>Acer macrophyllum</i>	20- 60	1- 3	100	5
DOGWOOD FAMILY				
Dogwood, <i>Cornus nuttallii</i>	10- 50	1- 2 ^k	100 ^k	....
HEATH FAMILY				
Madroña, <i>Arbutus menziesii</i>	20-125	1- 5	130 ^k	10 ^k
ASH FAMILY				
Oregon ash, <i>Fraxinus oregonu</i>	30- 80	1- 3	100 ^k	4 ^s
HONEYSUCKLE FAMILY				
Blue elderberry, <i>Sambucus glauca</i>	15- 28	6-18*	28	28 ^s

* Both the height and the diameter are always in feet except where indicated by an asterisk, in which case the diameter is in inches. The authority unless otherwise noted is W. L. Jepson, *Silva of California*, 1910.

^k A. Kellogg, *Forest Trees of California*, 1882.

^e E. P. Sheldon, *Forest Wealth of Oregon*, 1894.

^s C. S. Sargent, *Silva of North America*, IV, VI, IX, XII, 1891-1902.

^b B. Brereton, *The Practical Lumberman*, ed. 2, 1911.

^h Hutchings' *California Magazine*, 1856, quoted by W. W. Elliott & Co., *History of Humboldt County, California*, p. 140, 1881.

TABLE 2

SHELLMOUND SAMPLES FROM SITE 67 GRADED ACCORDING TO SIZE OF CONSTITUENTS

Layer	Depth, ft.	Quantity grams	Coarse ^a %	Medium ^b %	Fine ^c %	Finest ^d %
I	1	308	7.86	.75	.47	90.91
II	2	1216	.52	.29	.15	99.03
III	2	3304	23.21	3.00	1.10	72.68
V	3	366	.48	.55	.25	98.71
VII	3.2	990	36.71	2.17	1.10	60.02
XI	4	635	36.25	3.88	4.17	55.70
XV	6	345	2.49	.92	.70	95.89
XVI	6.5	302	22.32	2.55	1.66	73.48
XVI	8	2024	15.93	2.02	1.63	80.40
Average of percentages			16.20	1.79	1.25	80.76

- ^a Caught on a sieve having 8 meshes to the inch.
^b Passing through a sieve of 8 meshes but caught on one of 16 meshes to the inch.
^c Passing through a sieve of 16 meshes but caught on one of 25 meshes to the inch.
^d Passing through a sieve of 25 meshes to the inch.

TABLE 3

ANALYSIS OF SHELLMOUND SAMPLES FROM SITE 67

Layer	Depth ft.	Quantity grams	Shell %	Fish %	Bird %	Charcoal %	Rock %	Clay %	Residue %
I	1	308	7.88	.20	.23	.54	.23	....	90.91
II	2	1216	.53	.06	.03	.07	.07	.20	99.03
V	3	366	.05	....	....	.90	.17	.16	98.71
XI	4	635	43.80	.08	....	.03	.39	....	55.70
XV	6	345	3.65	.03	.03	.32	.09	....	95.89
XVI	6.5	302	23.84	.10	....	1.92	.66	....	73.48
XVI	8	2024	17.64	.03	.01 ^a	1.80	.07	.02	80.40
Average of 7 samples			13.91	.07	.04	.80	.24	.06	84.87
III	2	3304	16.10	.58	9.75	.26	.55	.07	72.68
VII	3.2	990	31.78	4.86	1.72	.58	.10	.92	60.02
0-6 5 gal. ^b {			15.95-	.22+	.03+	.24	.09+	.03	80.43
			18.87-	.25+	.04+	.27	.10+	.04	83.44

^a Also about an equal amount of cetacean bones.

^b Five gallons, or some 20,000 to 25,000 grams, taken in about equal amounts from all depths down to six feet. The two sets of figures indicate the extremes of calculations based on rough estimates made in the field checked up by a more careful analysis at the University of material passing through a sieve with four meshes to the inch. Because of the unknown amounts of bone and rock caught on the sieve along with the coarser shell, an unknown, though small, percentage should be subtracted from the figures for the percentage of shell, and added to that of the fish, bird, and rock.

TABLE 4

VERTEBRATE REMAINS—SITE 67

ARTIFACTS	0-3 ft.		3-6 ft.		6-9 ft.		Total	
	No.	Grams	No.	Grams	No.	Grams	No.	Grams
Cervidae bone	46	902	20	464	2	47	68	1413
Cervidae horn	18	611	17	811	....	.....	35	1422
Bird bone	13	48	2	7	....	.....	15	55
NOT ARTIFACTS								
Cetacean ^a	3	765	21	5160	2	158	26	6083
Seals	17	226	34	890	1	17	52	1133
Sea-otter	9	58	3	59	3	16	15	133
Misc. marine	20	176	....	.....	....	.....	20	176
Cervidae bone	42	1145	60	1559	17	708	119	3412
Cervidae horn	34	482	13	397	....	.....	47	879
Misc. mammal	144	521	187	1116	40	221	371	1858
Bird ^b .....	....	2302	....	1613	....	53	....	3968
Fish ^c	112	61	34	24	....	.....	146	85
Total	458	7297	391	12100	65	1220	914	20617

^a One piece from upper levels weighed 727 grams, and a vertebra from a depth of over three feet weighed 4122 grams.

^b Approximately 2000 pieces from upper three feet, 1000 pieces from three to six feet deep, and 37 pieces from a greater depth. Figures do not include some 400 pieces over an inch in length from a pocket in layer III for which see table 3.

^c Does not include the pocket of fish bone from layer VII.

TABLE 5

HUMAN REMAINS AND NUMBER OF ASSOCIATED ARTIFACTS—SITE 67

Remains no.	Depth ft.	Burial	Cremation	Weight ounces	Adult	Immature	Flint	Sandstone	Stoneware	Clay balls	Bone	Shell	Carbonized	Total artifacts
1	.8	...	×	25	×	...	2	1	...	...	...	3	2	8
6	1.	×	...	70	×	...	...	...	...	...	...	...	...	...
3	1.2	...	×	25	×	...	1	12	...	...	1	...	...	14
9	1.3	...	×	5	×	...	6	...	...	...	4	3	3	16
19	1.7	...	×	32	×	...	7	4	2 ^r	3 ^t	...	4	2	22
21	1.8	×	...	0.2	...	^a	...	...	...	...	...	...	...	...
2	2.	...	×	1.5	...	^b	15	1	1 ^g	...	2	...	1	20
4	2.	...	×	23	×	...	18	...	1 ^h	...	2	...	...	21
5	2.2	×	...	17	×	...	...	...	...	...	...	...	...	...
12	2.3	...	×	40	×	...	5	2	...	13	1	...	...	21
20	2.3	...	×	0.4	?	...	...	4	...	...	3	...	...	7
8	2.8	×	...	79	×	...	...	...	...	...	...	...	...	...
10	2.8	...	×	36	×	...	...	...	...	1	1	1	...	3
7	3.	×	...	91	×	...	1	...	...	...	...	2	...	3
22	3.	×	...	0.1	...	^a	...	...	...	...	...	...	...	...
13	3.	...	×	...	...	^c	2	...	...	1	1	1	1	6
11	3.2	...	×	...	...	^b	...	...	...	...	2	1	...	3
18	3.5	...	×	2	...	^e	1	...	...	1	1	2	1	6
15	4.5	...	×	...	...	^c	2	1	...	1	...	...	...	4
16	4.5	...	×	7.1	×	...	...	...	...	...	...	...	...	...
14	4.8	...	×	6.3	×	...	28	5	1 ^h	73	3	1	1	112
17	5.8	...	×	10	×	...	...	...	...	...	...	...	...	...
Total		6	16	...	15	5	88	30	5	93	19	19	12	266

^a Very young infant.^b Child.^c No bone remains but cremation indicated by charcoal and artifacts.^d Human remains consisted of one tooth only.^e Adolescent.^f One pipe, one slave-killer.^g Pipe.^h Slave-killer.ⁱ One clay pipe.

TABLE 6
SCATTERED ARTIFACTS—SITE 67

Depth ft.	Obsidian	Chert	Sandstone	Steatite	Slate ^b	Clay balls	Bird bone	Mammal bone	Horn wedges	Horn harpoons	Olivella beads	Total
.5 ^a	1	3	10 ^a	1 ^b	2	...	1	3	2	...	...	23
1.	1	...	5	...	...	4	4	3	2	1	1	21
1.5	9	...	...	9 ^c	4	9	2	...	...	33
2.	4	...	...	7	...	6	1	...	...	18
2.5	7	1 ^d	...	8	1	8	5	1	...	31
3.	2	...	...	7	...	5	5	2	...	21
3.5	5	...	...	2	1	4	2	...	...	14
4.	5	...	...	4	...	6	2	...	...	17
4.5	5	...	...	2	...	1	5	...	...	13
5.	6	...	...	1	...	...	1	...	1	9
5.5	3	...	...	1	...	...	...	...	...	4
6.	1	...	...	1	2
7.	1	...	...	...	1
0-3	15	...	1	...	...	6	3	1	...	26
3-6	4 ^e	...	...	...	...	...	...	...	...	4
Total	2	3	80 ^f	2	3	45	11	53	30	5	3	237

^a One maul 4 in. deep, other articles 6 to 9 in. deep.

^b Fragments of slave-killers.

^c Not including seven fragments.

^d Fragment of a dish (pl. 16, fig. 6).

^e Hammer stones found at the museum among samples of stone.

^f Including 8 specimens really not sandstone.

TABLE 7
CHIPPED IMPLEMENTS—SITE 67

Remains no.	Depth ft.	Obsidian					White flint				Chert			Total
		Black blades ^a	Red blades ^a	Knives ^b	Arrow points	Various ^c	Blades ^d	Knives ^e	Drills	Arrow points	Knives ^b	Arrow points	Various	
1	.8	---	---	---	---	---	2	---	---	---	---	---	---	2
3	1.2	---	---	---	---	1	---	---	---	---	---	---	---	1
9	1.3	1	2	---	1	---	1	---	---	---	1	---	---	6
19	1.7	---	2	2	---	2 ^d	---	1	---	---	---	---	---	7
2	2.	1	---	---	12	---	---	---	---	1	---	1	---	15
4	2.	1	1	---	7	1 ^e	---	1	1	4	---	1	1 ^f	18
12	2.3	1	---	---	---	---	1	1	---	---	2	---	---	5
7	3.	---	1	---	---	---	---	---	---	---	---	---	---	1
13	3.	---	---	---	---	---	1?	---	1	---	---	---	---	2
18	3.5	---	---	1	---	---	---	---	---	---	---	---	---	1
15	4.5	---	---	---	---	---	1?	1	---	---	---	---	---	2
14	4.8	1	1	---	5	2 ^f	---	3	3	9	---	3	1	28
	6 in.	---	---	---	---	---	---	---	---	---	2	---	---	2
	9 in.	1	---	---	---	---	---	---	---	---	---	---	1 ^g	2
	1 ft.	---	1	---	---	---	---	---	---	---	---	---	---	1
Total		6	8	3	25	6	6	7	5	14	5	5	3	93

^a Long double pointed type of ceremonial knife (pl. 13, figs. 1, 2, 6).

^b Single pointed type less than five inches long (pl. 13, figs. 7, 8).

^c Mostly too fragmentary to classify.

^d Two fragmentary knives probably over four inches long, perhaps much longer.

^e Red obsidian scraper (text fig. 2).

^f Two drills (pl. 14, figs. 13, 15).

^g Ceremonial blades are over 4 inches long, 2 inches wide, and well worked (pl. 13, figs. 3, 4; pl. 14, fig. 1). Knives are smaller and often cruder. In cases of fragmentary specimens there is some doubt as to the original size.

^h All lengths from two inches to over five inches (pl. 13, figs. 5, 9).

ⁱ Drill (pl. 14, fig. 14).

^j Scraper (pl. 15, fig. 5).

TABLE 8
SANDSTONE IMPLEMENTS—SITE 67

Remains no.	Depth ft.	Pestles	Mauls	Adze handles	Sinkers ^c	Girdled stones	Hammer stones	Various ^b	Total
1	.8	....	....	1	....	....	....	....	1
3	1.2	1	....	....	11	....	....	....	12
19	1.7	2	2	....	....	....	....	....	4
2	2.	....	....	....	....	1	....	....	1
12	2.3	....	....	....	2 ^d	....	....	....	2
20	2.3	2	2	....	....	....	....	....	4
15	4.5	....	....	....	....	....	....	1	1
14	4.5	....	....	....	1	....	1	3 ^f	5
Scattering	.5	2	2 ^h	3	3 ^e	....	....	....	10
	1.	....	....	....	4 ^f	1	....	....	5
	1.5	....	....	1	5	2	....	1 ^j	9
	2.	....	2	....	2	....	....	....	4
	2.5	1	2	1	2	....	....	1	7
	3.	....	1	....	1	....	....	....	2
	3.5	1	....	....	4 ^e	....	....	....	5
	4.	....	1	....	4 ^e	....	....	....	5
	4.5	2	....	....	3	....	....	....	5
	5.	1	1	....	4 ^e	....	....	....	6
Scattering	5.5 ⁱ	....	....	....	2	1	....	....	3
	0-3	3	8	....	2 ^e	....	2	....	15
	3-6	....	....	....	....	....	4	....	4
Total		15	21	6	50 ^e	5	7	6	110

^a One sinker and a girdled stone at depths of 5¾ feet.

^b One maul at a depth of 4 inches.

^c Including 8 specimens not of sandstone but of sinker type.

^d One of granite.

^e One of chert.

^f One of porphyry.

^g One of granite and one of chert.

^h Mostly too fragmentary to classify.

ⁱ One problematical stone object (pl. 17, fig. 5).

^j Fragment of an anvil or mortar-slab used with a basket hopper.

TABLE 9
BONE ARTIFACTS—SITE 67

Remains no.	Depth ft.	Bird			Mammal						Total
		Whistles	Beads	Various ^a	Awls	Gouges	Scratchers	Adze blades	Cannons ^c	Various ^d	
33	1.12	...	...	...	...	...	...	...	...	1	1
9	1.3	2	...	...	...	2	...	...	...	...	4
2	2.	...	...	...	...	...	2	...	...	...	2
4	2.	1	...	...	...	1	...	...	...	...	2
12	2.3	...	...	...	...	1	...	...	...	...	1
20	2.3	...	...	...	...	1	...	...	...	2	3
10	2.8	...	...	...	...	1	...	...	...	...	1
13	3.	1	...	...	...	...	...	...	...	...	1
18	3.5	...	...	...	...	...	...	...	1	...	1
14	4.8	...	...	...	...	2	1	...	...	...	3
Scattering	.5	...	1	...	1	1	...	1	...	...	4
	1.	2	...	2	...	3	...	...	...	...	7
	1.5	...	1	3	2	5	...	1	1	...	13
	2.	...	...	...	1	2	1	...	...	2 ^e	6
	2.5	...	...	1	1	4	...	2	1	...	9
	3.	...	...	...	...	5	...	...	...	...	5
	3.5	...	...	1 ^b	1	1	1	1	...	...	5
	4.	...	...	...	...	4	...	...	...	2 ^f	6
	4.5	...	...	...	...	...	...	...	1	...	1
	6-7	...	...	...	...	2 ^g	...	...	...	...	2
	0-3	...	...	...	1	4	...	...	1	...	6
Total		6	2	7	7	39	5	5	5	7	83

^a Limb bones, one end cut off.^b One awl.^c End cut off and rejected in making implements.^d Mostly too fragmentary to classify.^e One harpoon point and possibly top of another.^f Problematical objects (pl. 30, figs. 8 and 9).^g One at a depth of 6 ft., the other 7 ft.

TABLE 10
SHELL OBJECTS AND CARBONIZED ARTICLES—SITE 67

Remains no.	Depth ft.	Shell objects				Pine nut beads ^a	Viburnum beads ^a	Basketry ^a	Total
		Dentalium ^a	Abalone	Olivella	Pecten ^b				
1	.8	1	....	2 ^a	....	1	1	....	5
9	1.3	1	1	1 ^a	....	1	1	1	6
19	1.7	1	1 ^b	1 ^a	1	1	1	....	6
2	2.	....	....	....	....	1	....	....	1
10	2.8	....	....	1 ^a	....	....	....	....	1
7	3.	....	2	....	....	....	....	....	2
13	3.	....	1 ^b	....	....	1	....	....	2
11	3.2	....	1	1	....	1	....	....	3
18	4.5	....	2	....	....	1	....	....	3
14	4.8	....	....	....	1	1	....	....	2
Scattering {	1.	....	....	1	....	....	....	....	1
	4.5	....	....	2 ^b	....	....	....	....	2
	5.	....	....	1	....	....	....	....	1
	6.	....	....	1	....	....	....	....	1
Total		3	8 ^c	11	2 ^d	8	3	1	36

^a Figures denote number of lots of beads, etc.

^b Not an artifact, but of rare occurrence.

^c Not counting a piece of worked abalone found on the surface of the mound.

^d Not including a pecten shell found on the surface.



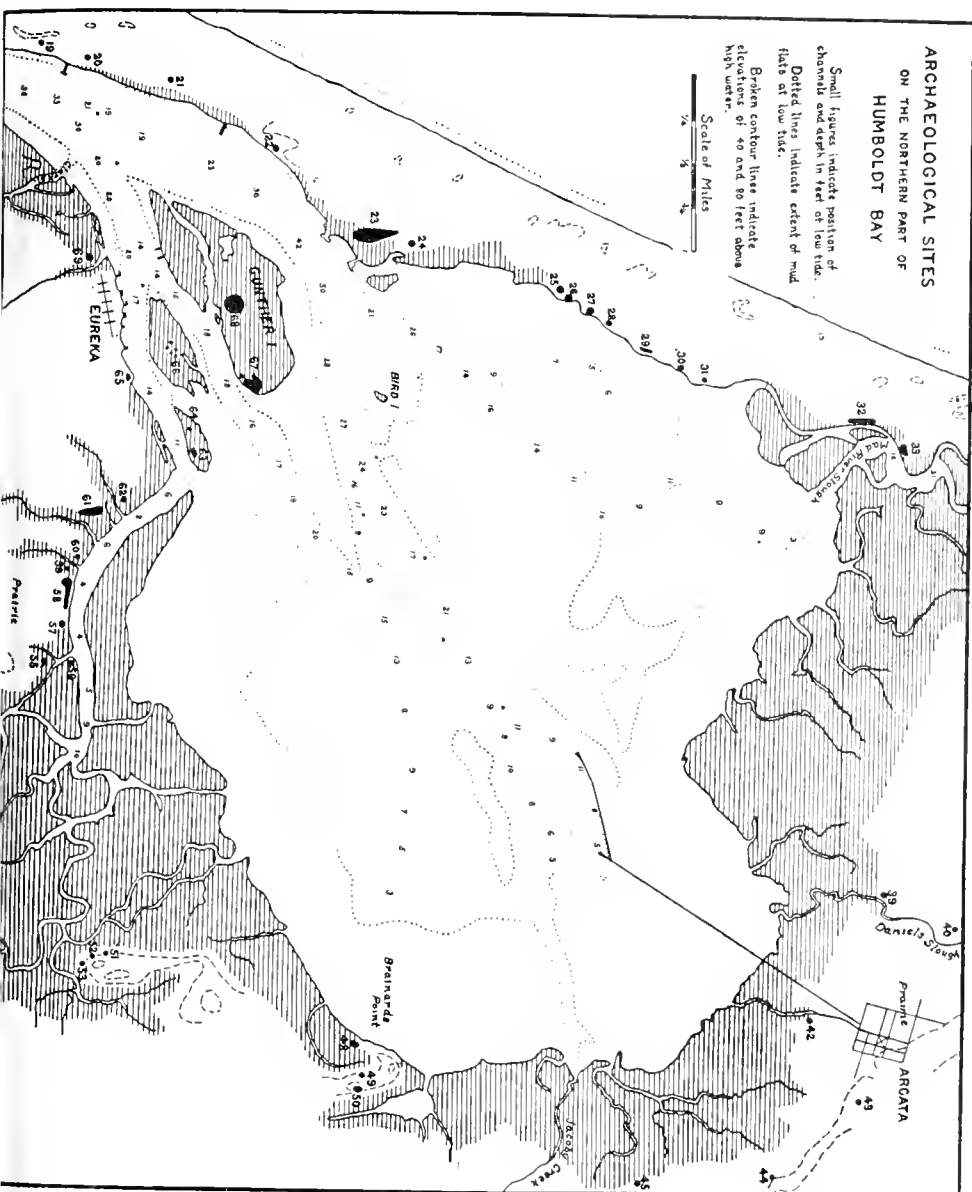
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EXPLANATION OF PLATE 3

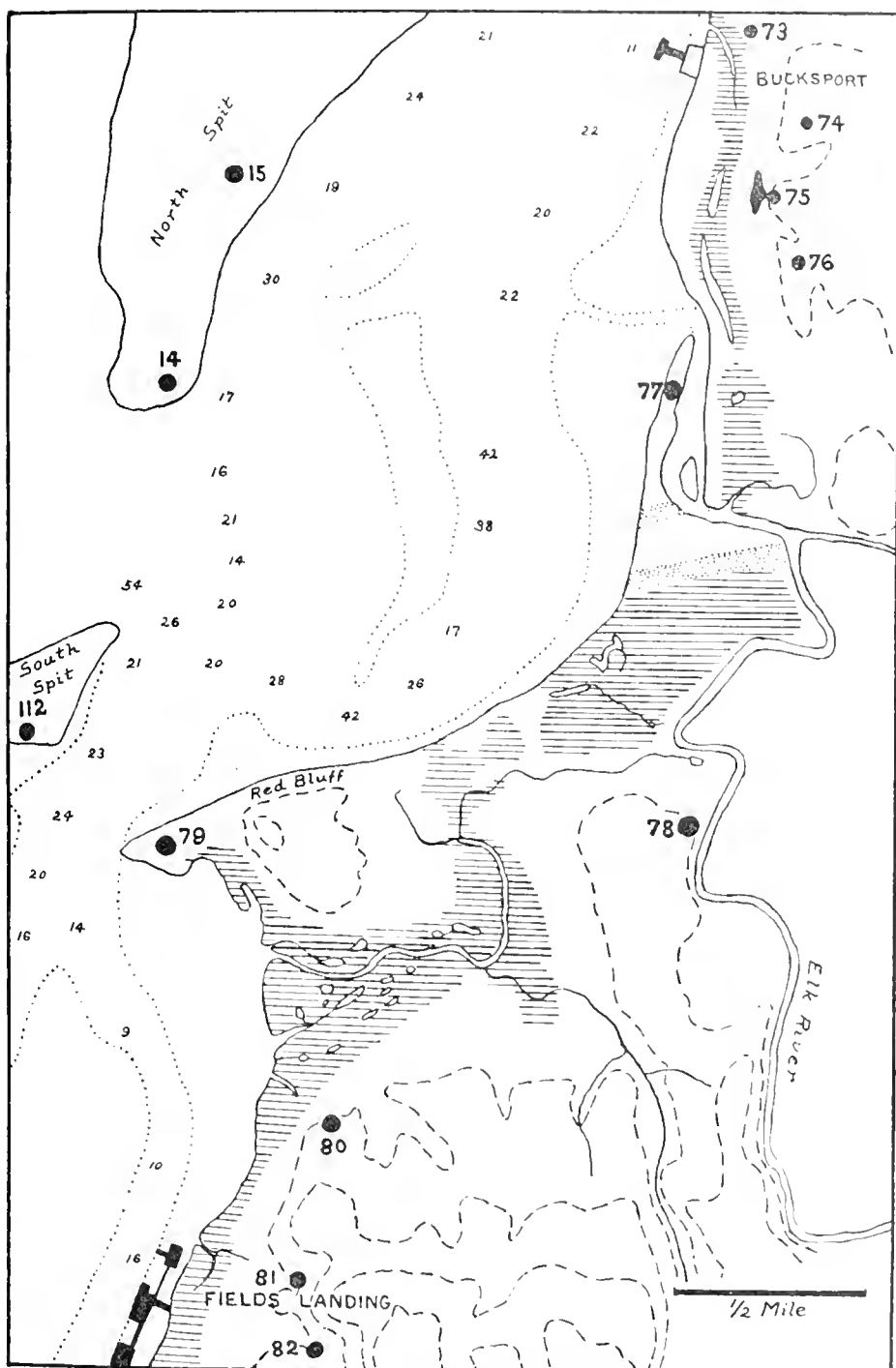
Map showing archaeological sites near the entrance to Humboldt bay. Based on the U. S. Coast and Geodetic Survey map of 1858.

Small figures indicate position of channels and depth in feet at the mean of the lower low waters.

Dotted lines indicate extent of mud flats at the mean of the lower low waters.

Broken contour lines indicate elevations of 20 feet, 100 feet, and successive differences of 100 feet above high water.

Shaded area indicates marsh, while dotted area shows old channels of Elk river.



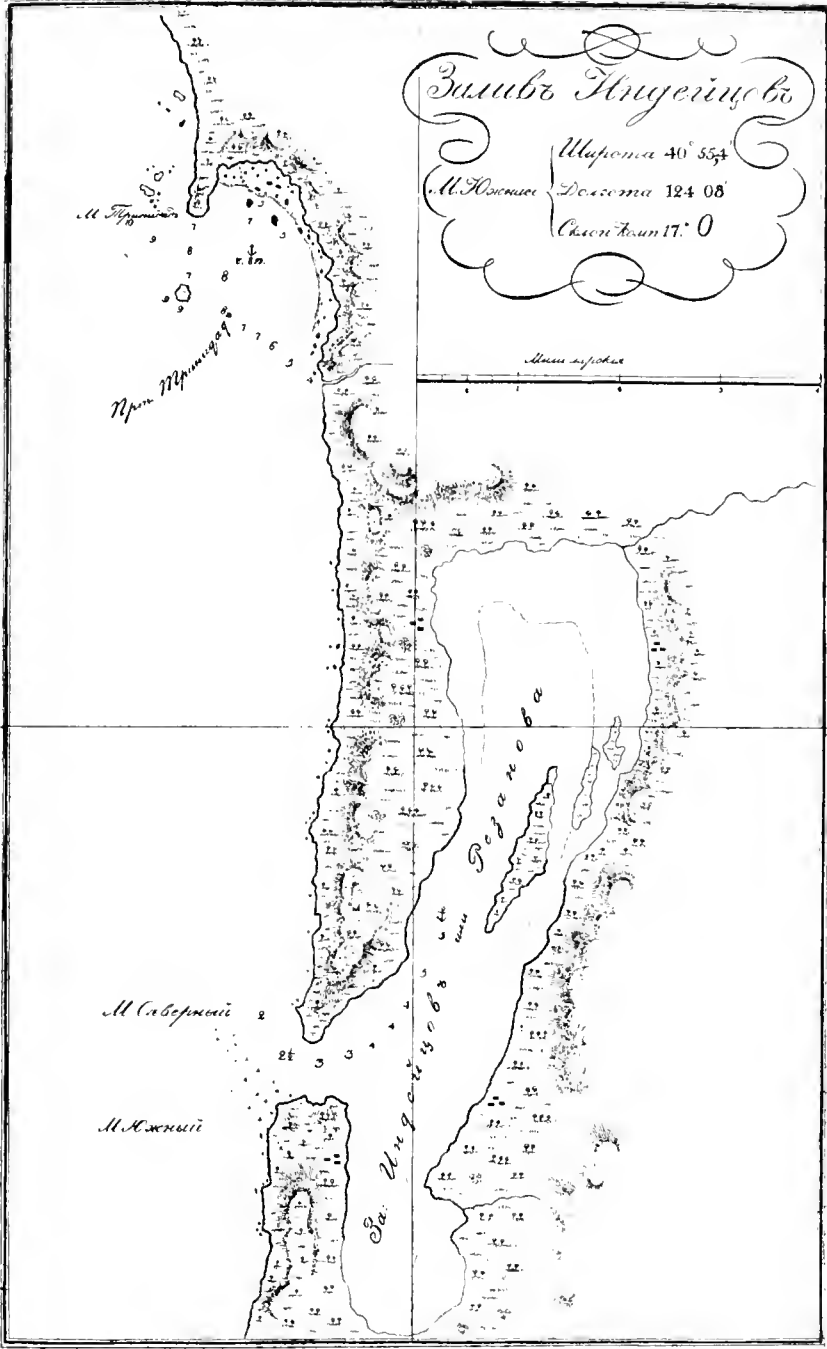
ENTRANCE TO HUMBOLDT BAY, 1858

EXPLANATION OF PLATE 4

Photographic reproduction of a map of Humboldt bay sketched in 1806 by Capt. Jonathan Winship, engaged in the fur trade for the Russian-American Company. Published as a subchart to general chart XIII in Atlas of Northwest Coast of America, Aleutian Islands, and other Places in the North Pacific; compiled in 1848 by Captain Tibenkof and printed in 1852 at St. Petersburg.

Mad river is not shown upon this map while the portion from Little river northward was probably taken from Vancouver's chart.

Locations of four Indian villages are indicated by rectangles.



WINSHIP'S MAP OF HUMBOLDT BAY, 1806

EXPLANATION OF PLATE 5

Fig. 1.—Looking northwest from the mouth of Little river; site 2, plet-kosomili, “rocks-small,” just around the first point; Little River Rock, a double headed rock of 120 ft. elevation, in the center; Trinidad Head, of 380 ft. elevation, in the distance beyond Little River Rock; and Pilot Rock, 103 ft. elevation, in the distance to the left. A sand bar littered with driftwood is in the foreground to the left (text, p. 227).

Fig. 2.—View of Red Bluff and Humboldt hill, 100 and 600 ft. elevation respectively, taken from aboard ship near the entrance to the bay.



Fig. 1.



Fig. 2.

ABRUPT COASTS

EXPLANATION OF PLATE 6

Fig. 1.—Wiyot camping place on North fork of Mad river at site AF, where there is a water hole 12 ft. deep even in the dry season (text, p. 264).

Fig. 2.—The "Arrow Tree," site AH (text, p. 252).



Fig. 1.



Fig. 2.

EXPLANATION OF PLATE 7

Fig. 1.—Shellmound, site 58, light colored area in the center. Eureka slough to the left (text, p. 268).

Fig. 2.—Looking northwest from Hookton slough towards Table Bluff and the modern Indian village, Indianola, situated on an old village site, site 100, yawonawoch.



Fig. 1.



Fig. 2.

WYOT VILLAGES OF THE PAST AND OF THE PRESENT

EXPLANATION OF PLATE 8

Fig. 1.—Sand dunes to the north of site 37, fifty to sixty feet in elevation, burying trees three feet in diameter, and doubtless overwhelming the remains of more than one "Old Nation" (text, pp. 276, 281).

Fig. 2.—Shellmound, site 27, occupied by a modern dwelling (text, p. 276).



Fig. 1.



Fig. 2.

SAND DUNE AND VILLAGE SITE

EXPLANATION OF PLATE 9

Fig. 1.—View of site 67, tōlōwot, a shellmound 14 feet high and 600 feet long, extending nearly the entire length of the picture. In the foreground is seen a smaller isolated patch of shell (text, p. 339).

Fig. 2.—Site 23, digawethatkil, a shellmound seen over the board fence and reaching back nearly to the woods one-quarter of a mile away (text, p. 275).



Fig. 1.



Fig. 2.

SHELLMOUNDS

EXPLANATION OF PLATE 10

Fig. 1.—Site 11. One of fifty or more patches of shell, broken chert, and burnt stones, left exposed by drifting sand, along a three-mile stretch of ocean beach (text, p. 279).

Fig. 2.—Site 11. One of twenty or more patches of small flat stones, left exposed by drifting sand along a three-mile stretch of ocean shore where the "Old Nation" used to live (text, pp. 279, 281).

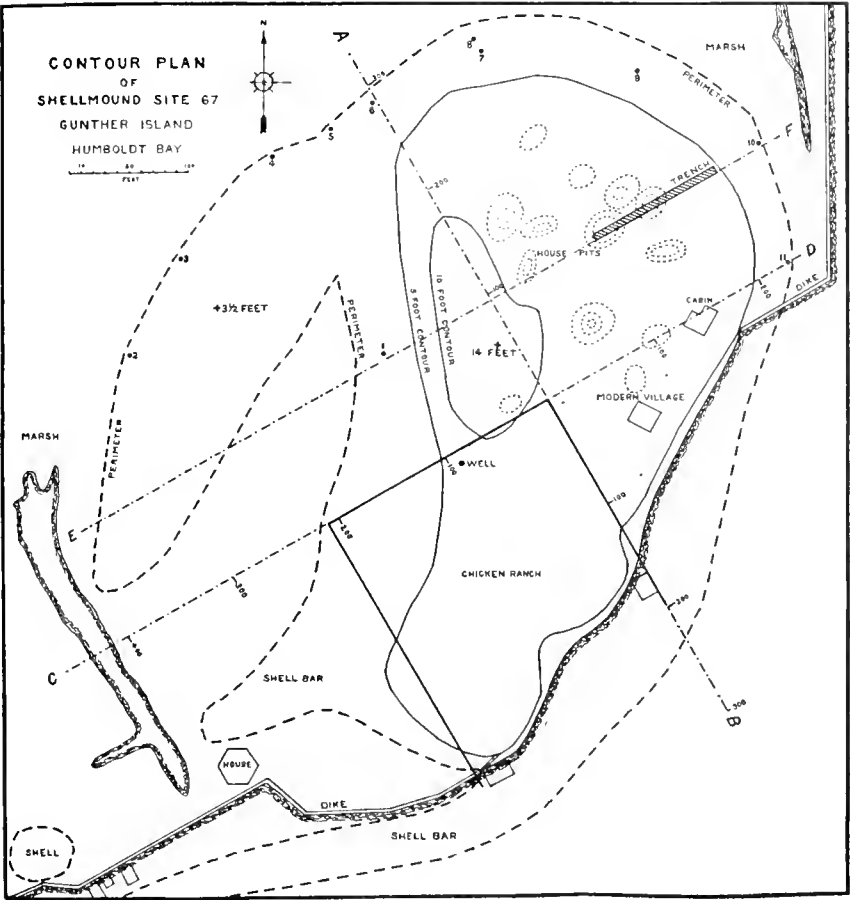


Fig. 1.



Fig. 2.

WHERE THE "OLD NATION" DWELT



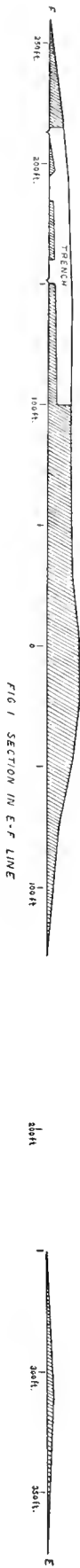


FIG. 1 SECTION IN E-F LINE

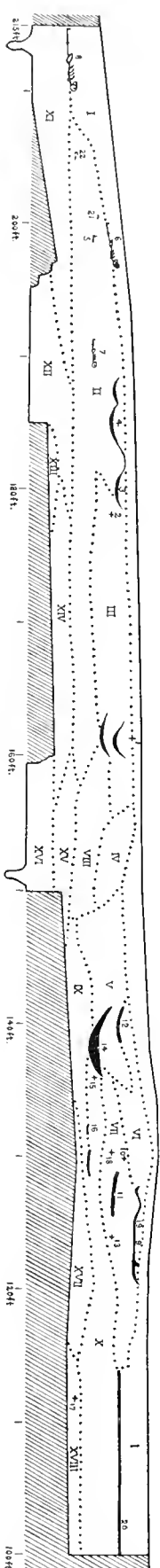


FIG. 2 SECTION WALL OF TRENCH IN E-F LINE

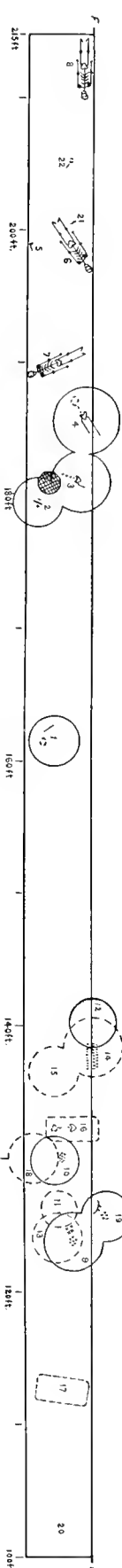


FIG. 3 DIAGRAM OF TRENCH

VERTICAL SECTION OF SITE 67 AND SECTION AND DIAGRAM OF TRENCH.

Unexcavated.

Layers.

Circles and rectangles indicate charcoal beds with human remains, those in solid lines being uppermost.

Crosses indicate charcoal beds not cut by the vertical plane E-F

(See text pages 339, 340, 350, 354.)

EXPLANATION OF PLATE 13

Stone knives from site 67. All figures 1/4 of natural size.

Fig. 1.—Black obsidian ceremonial knife found with human remains no. 9 at a depth of 1.3 feet. Mus. no. 1-18213.

Fig. 2.—Red obsidian ceremonial knife, with remains no. 9. Mus. no. 1-18214.

Fig. 3.—White flint ceremonial knife, with remains no. 1 at a depth of 9 inches. Mus. no. 1-18061.

Fig. 4.—White flint knife, with remains no. 12 at a depth of 2.3 feet. Mus. no. 1-18070.

Fig. 5.—Greenish chert knife from a depth of 6 inches. Mus. no. 1-18308.

Fig. 6.—Red obsidian knife, with remains no. 7 at a depth of 3 feet. Mus. no. 1-18000.

Fig. 7.—Black obsidian knife, with remains no. 19 at a depth of 1.7 feet. Mus. no. 1-18234.

Fig. 8.—Black obsidian knife or scraper with remains no. 18 at a depth of 3.5 feet. Mus. no. 1-18212.

Fig. 9.—Gray chert knife, with remains no. 9 at a depth of 1.3 feet. Mus. no. 1-18216.

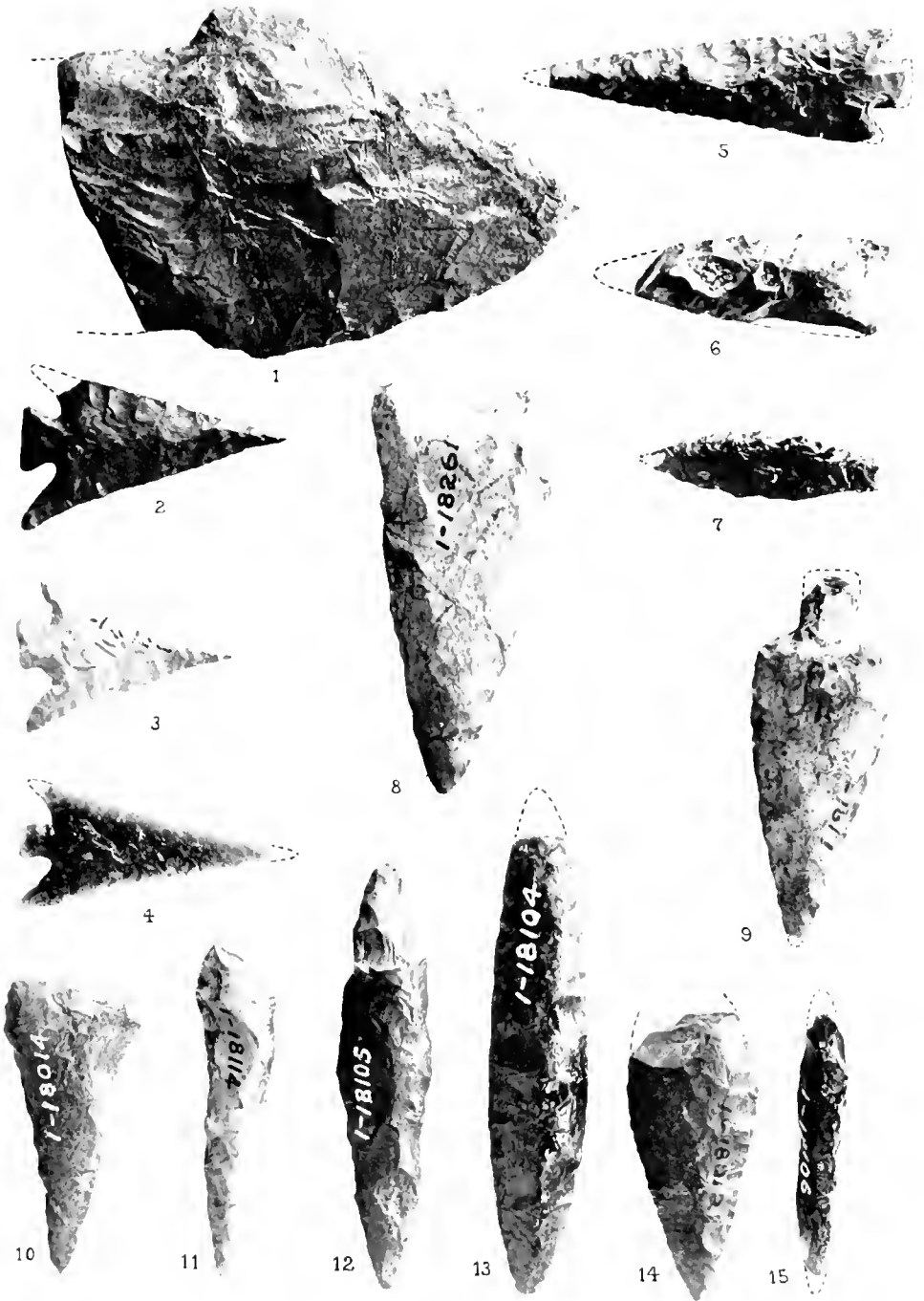


KNIVES

EXPLANATION OF PLATE 14

Chipped implements from site 67, found in association with cremated human remains. Figure 1 with remains no. 9 at a depth of 1.3 feet. Figures 2, 5, 6, 7, 9, 11, 12, 13, and 15 with remains no. 14 at a depth of 4.8 feet. Figure 3 with remains no. 2 at a depth of 2 feet. Figures 4, 10, and 14 with remains no. 4 at a depth of 2 feet. Figure 8 with remains no. 13 at a depth of 3 feet. All figures .98 natural size.

- Fig. 1.—Fragment of a white flint knife. Mus. no. 1-18217.
- Fig. 2.—Dark brown chert arrow point. Mus. no. 1-18107.
- Fig. 3.—Greenish chert arrow point. Mus. no. 1-18052.
- Fig. 4.—Black obsidian arrow point. Mus. no. 1-18003.
- Fig. 5.—White flint arrow point. Mus. no. 1-18109.
- Fig. 6.—White flint arrow point. Mus. no. 1-18112.
- Fig. 7.—Black obsidian arrow point. Mus. no. 1-18103.
- Fig. 8.—White flint spear point or drill. Mus. no. 1-18261.
- Fig. 9.—White flint arrow point or drill. Mus. no. 1-18111.
- Fig. 10.—White flint drill. Mus. no. 1-18014.
- Fig. 11.—White flint drill. Mus. no. 1-18114.
- Fig. 12.—White flint drill. Mus. no. 1-18105.
- Fig. 13.—Black obsidian drill. Mus. no. 1-18104.
- Fig. 14.—Brown chert drill. Mus. no. 1-18012.
- Fig. 15.—Black obsidian drill. Mus. no. 1-18106.



CHIPPED IMPLEMENTS

EXPLANATION OF PLATE 15

Chipped implements from various sites. All figures .87 natural size.

Fig. 1.—Red chert scraper from site 10. Mus. no. 1-17869.

Fig. 2.—Black and red obsidian scraper or knife from site 10. Mus. no. 1-17861.

Fig. 3.—Brown and greenish chert scraper from site 10. Mus. no. 1-17868.

Fig. 4.—Greenish gray arrow point from site 10. Mus. no. 1-17865.

Fig. 5.—Brown chert scraper from site 67 at a depth of 9 inches. Mus. no. 1-18310.

Fig. 6.—White translucent chalcedony arrow point from site 10. Mus. no. 1-17862.

Fig. 7.—Red chert arrow point from site 10. Mus. no. 1-17871.

Fig. 8.—Brown and gray arrow point from site 10. Mus. no. 1-17864.

Fig. 9.—Red chert spear point from site 106. Mus. no. 1-17991.

Fig. 10.—Greenish chert arrow point from site 43. Mus. no. 1-17967.

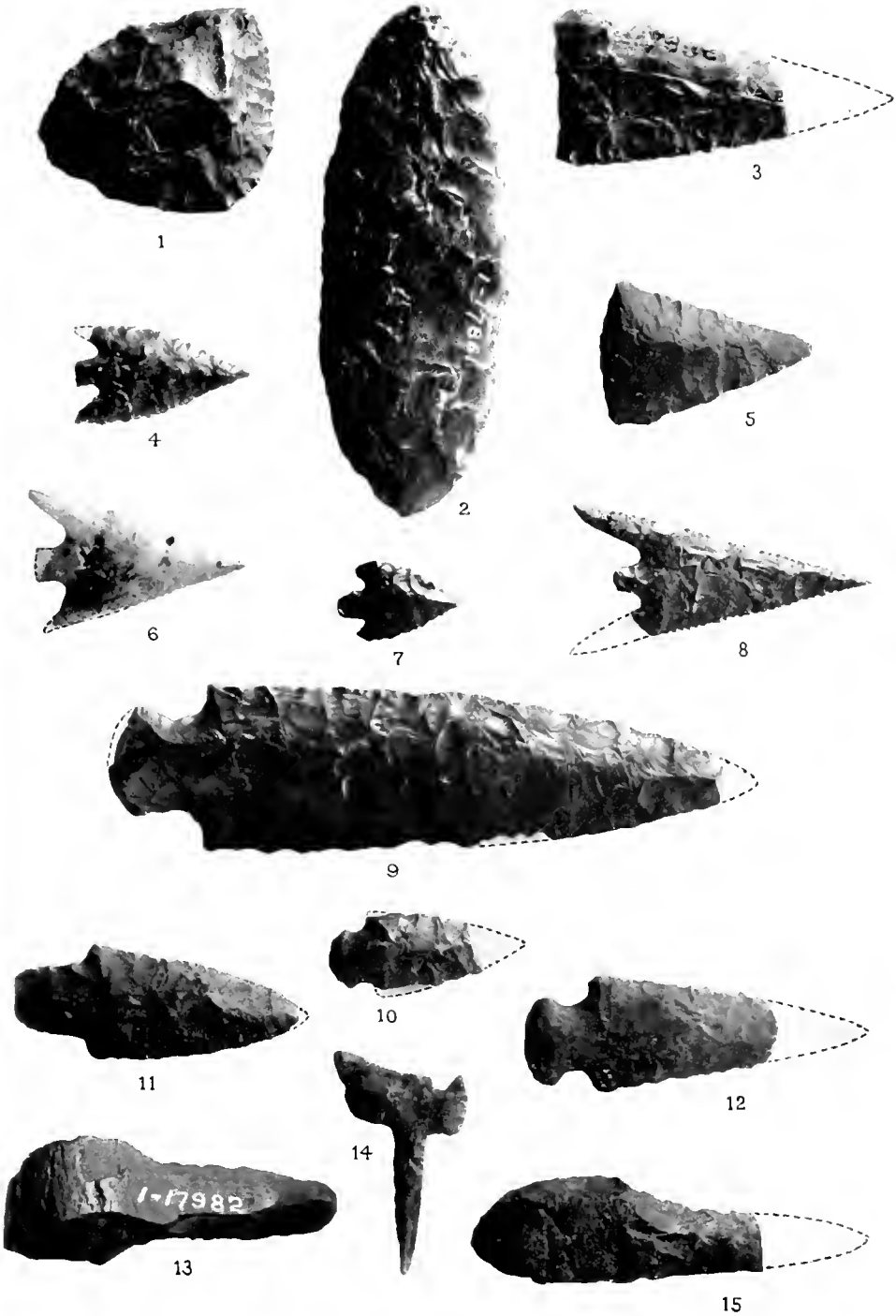
Fig. 11.—Brown chert spear or arrow point from site 106. Mus. no. 1-17993.

Fig. 12.—Greenish chert spear point of a "kind not made by Indians but thrown up by the ground when it has a pain." Gift of Dandy Bill. Mus. no. 1-17996.

Fig. 13.—Brown chert drill from site 68. Mus. no. 1-17982.

Fig. 14.—Greenish chert drill from site 10. Mus. no. 1-17866.

Fig. 15.—Red chert drill from site 68. Mus. no. 1-17983.



CHIPPED IMPLEMENTS

EXPLANATION OF PLATE 16

Stone implements. Figure 2 from site 54, the others from site 67. All figures .29 natural size.

Fig. 1.—Pestle found with human remains no. 3 at a depth of 1.3 feet. Mus. no. 1-18022.

Fig. 2.—Pestle from site 54. Mus. no. 17977.

Fig. 3.—Maul found with remains no. 20 at a depth of 2.3 feet. Mus. no. 1-18269.

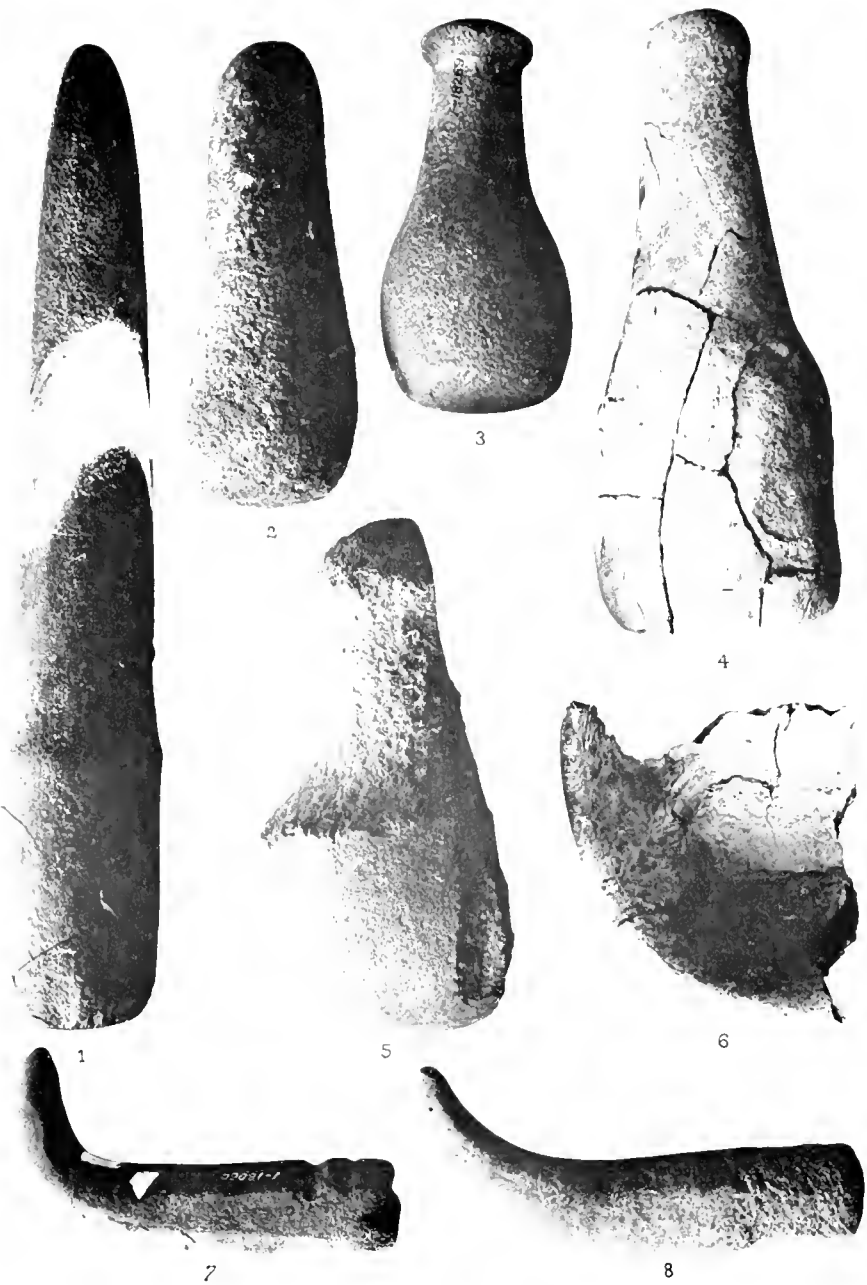
Fig. 4.—Maul found with remains no. 19 at a depth of 1.7 feet. Mus. no. 1-18254.

Fig. 5.—A stone partially shaped into a maul when it was split longitudinally. Mus. no. 1-18504.

Fig. 6.—Fragment of a steatite dish from a depth of 2.5 feet. Mus. no. 1-18301.

Fig. 7.—Adze handle found with remains no. 1 at a depth of 9 inches. Mus. no. 1-18060.

Fig. 8.—Adze handle from a depth of 1.5 feet. Mus. no. 1-18281.



VARIOUS STONE IMPLEMENTS

EXPLANATION OF PLATE 17

Objects from various sites. All figures .5 natural size.

Fig. 1*a* and 1*b*.—Photographic reproduction and cross-section of a steatite pipe from site 67. Found with human remains no. 2 at a depth of 2 feet. Mus. no. 1-18038.

Fig. 2.—Steatite pipe from site 67. Found with remains no. 19 at a depth of 1.7 feet. Mus. no. 1-18239.

Figs. 3*a* and 3*b*.—Photographic reproduction and cross-section of a bowl of a pipe made of steatite, from site 27. Mus. no. 1-17953.

Fig. 4.—Abrading implement of clay from site 80. Mus. no. 1-17990.

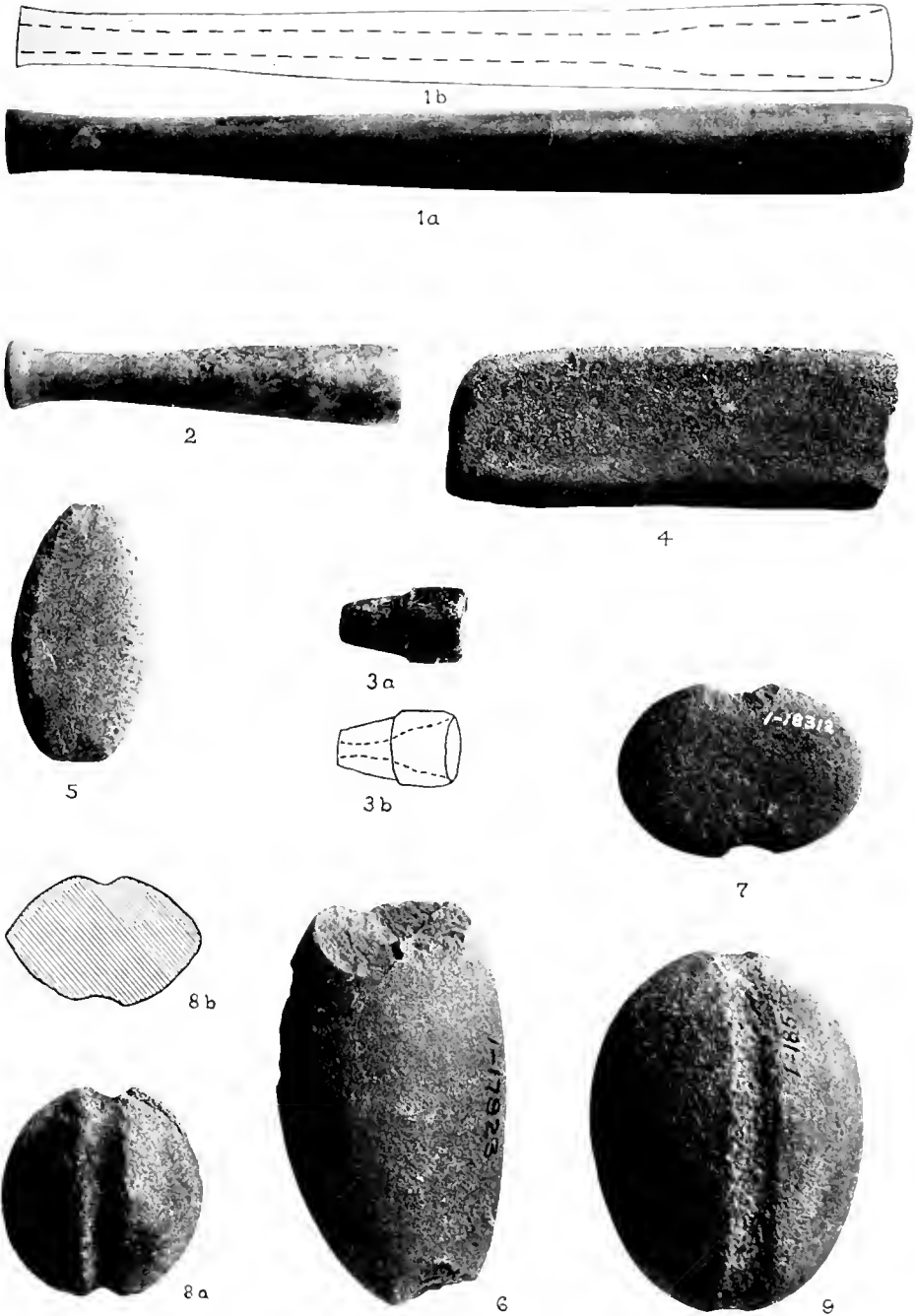
Fig. 5.—Problematical stone object from site 67. Found with remains no. 14 at a depth of 4.8 feet. Mus. no. 1-18118.

Fig. 6.—Hammer stone from sites 11, 12, or 13. Mus. no. 1-17923.

Fig. 7.—Net sinker from site 67. Mus. no. 1-18312.

Figs. 8*a* and 8*b*.—Side view and transverse cross-section of a girdled stone from site 67 at a depth of 1.3 feet. Mus. no. 1-18345.

Fig. 9.—Girdled stone from the beach at site 67. Mus. no. 1-18526.



PIPES, SINKERS, ETC.

EXPLANATION OF PLATE 18

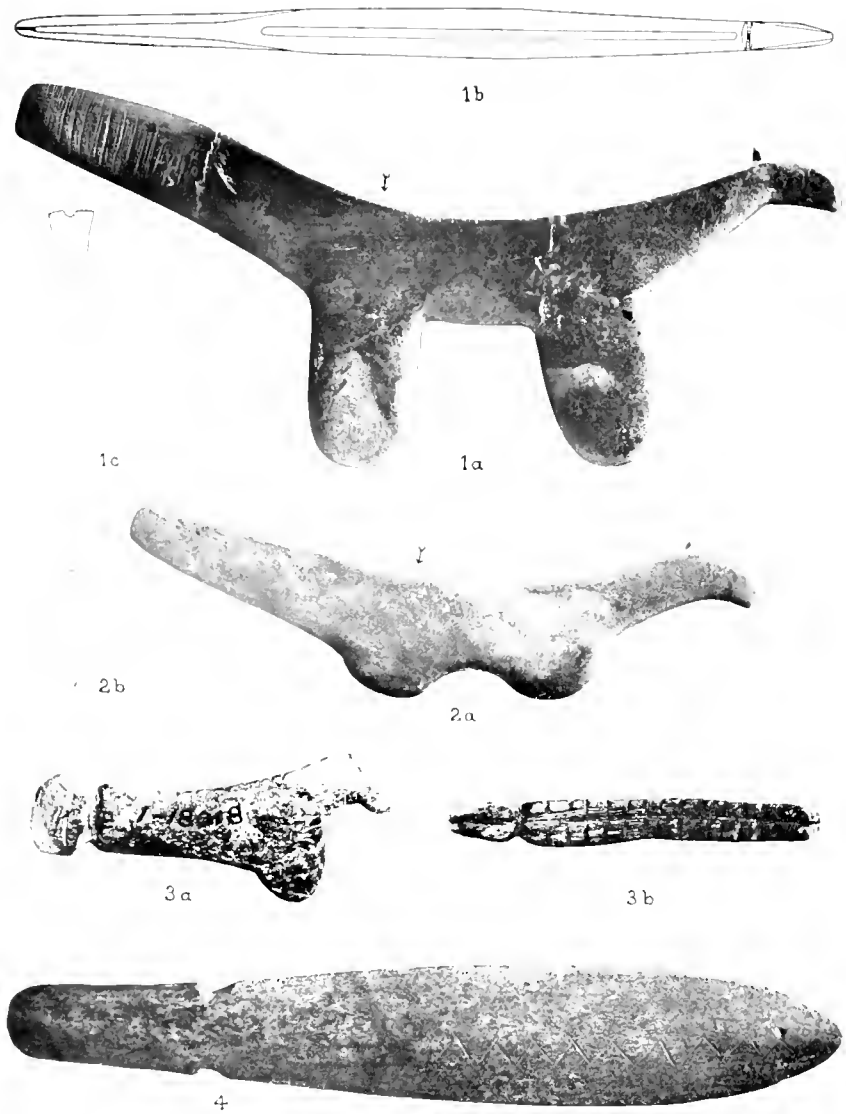
Ceremonial stone clubs or slave-killers made of steatite. Figures 1, 2, and 3 from site 67. Figure 4 obtained from the Yurok of Klamath river. Figure 3*a* and 3*b* .9 natural size, all other figures .26 natural size.

Figs. 1*a* and 1*b*.—Two views of a slave-killer, 416 mm. in length, weight 867 grams (30.6 ounces), found with human remains no. 19 at a depth of 1.7 feet. Mus. no. 1-18231. Fig. 1*c*.—Cross-section of the same at the position indicated by the arrow.

Fig. 2*a*.—Slave-killer, 322 mm. in length, weight 402 grams, found with remains no. 14 at a depth of 4.8 feet. Mus. no. 1-18093. Fig. 2*b*.—Cross-section of the same at the position indicated by the arrow.

Figs. 3*a* and 3*b*.—Two views of a miniature imitation of a slave-killer, 54 mm. in length, weight 9 grams (.3 ounce), found with remains no. 4 at a depth of 2 feet. Mus. no. 1-18018.

Fig. 4.—Stone club 423 mm. in length, weight 940 grams. Mus. no. 1-1570.



STONE CLUBS FROM WIYOT AND YUROK AREAS

EXPLANATION OF PLATE 19

War-clubs and slave-killers from various parts of America. Figure 6, made from bone of a whale; all others of stone. Figure 9, taken from C. B. Moore, *Certain Aboriginal Remains of the Black Warrior River*, *Jour. Acad. Nat. Sci. Phila.*, xiii, 134, 1905. All other figures taken from H. I. Smith, *Archaeology of the Gulf of Georgia and Puget Sound*, *Mem. Am. Mus. Nat. Hist.*, iv, 1907. All figures .21 natural size.

Fig. 1.—Probably from Klamath river. (Peabody Museum, Cambridge, Mass.)

Fig. 2.—Found three meters deep at Poormans Bar, Scott river, Siskiyou county, California. (Collected by Dr. F. G. Hearn.)

Fig. 3.—From Willamette slough, Columbia county, Oregon. (Collected by Judge F. A. Moore.)

Fig. 4.—Probably from Klamath river. (Peabody Museum, Cambridge, Mass.)

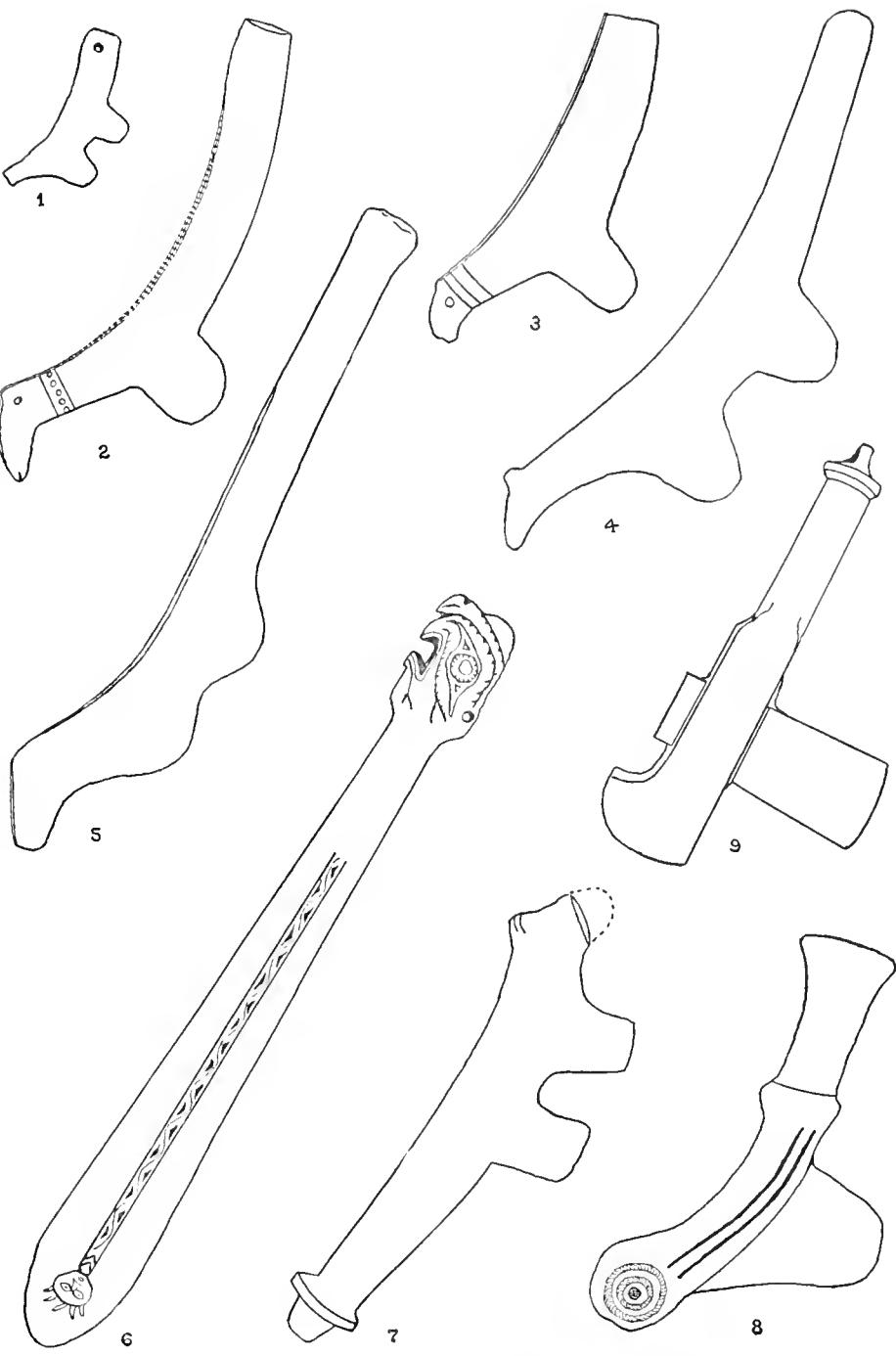
Fig. 5.—From Shovel Creek Springs, Siskiyou county, California, 20 miles west of Klamath lake. (Collected by J. W. Gotcher.)

Fig. 6.—From Barclay sound, west coast of Vancouver island. (Royal Ethnographical Museum, Berlin.)

Fig. 7.—From north arm of Burrad Inlet, near Vancouver, B. C. (Provincial Museum, Victoria, B. C.)

Fig. 8.—From Chilkat, 150 miles north of Sitka, Alaska. (Collected by Lieut. G. T. Emmons.)

Fig. 9.—Monolithic hatchet of greenstone from Moundville, west central Alabama.



CLUBS FROM CALIFORNIA, OREGON, AND ELSEWHERE

EXPLANATION OF PLATE 20

Figures 1 to 5, objects of clay, and figures 6 to 14, objects of bone, from site 67. Figures 15 to 17, bone objects from Klamath river region, showing characteristic decoration of northwestern California. All figures .73 natural size.

Fig. 1.—Clay ball found with remains no. 10 at a depth of 2.8 feet. Mus. no. 1-18204.

Fig. 2.—Clay ball found with remains no. 14 at a depth of 4.8 feet. Mus. no. 1-18123.

Fig. 3.—Clay ball from a depth of $4\frac{1}{2}$ feet. Mus. no. 1-18387.

Fig. 4.—Clay pipe found with remains no. 19 at a depth of 1.7 feet. Mus. no. 1-18240.

Fig. 5.—Clay ball from a depth of $3\frac{1}{4}$ feet. Mus. no. 1-18380.

Fig. 6.—Bird bone bead from a depth of 6 inches. Mus. no. 1-18402.

Fig. 7.—Lead scratcher (?) from a depth of $2\frac{1}{4}$ feet. Mus. no. 1-18431.

Figs. 8*a* and 8*b*.—Two views of a problematical bone object from a depth of $4\frac{1}{2}$ feet. Mus. no. 1-18423.

Fig. 9.—Bone object from a depth of $4\frac{1}{4}$ feet. Mus. no. 1-18110.

Figs. 10 and 11.—Whistles made from the ulnae of large birds. Objects found together at a depth of one foot. Mus. nos. 1-18401 and 1-18400.

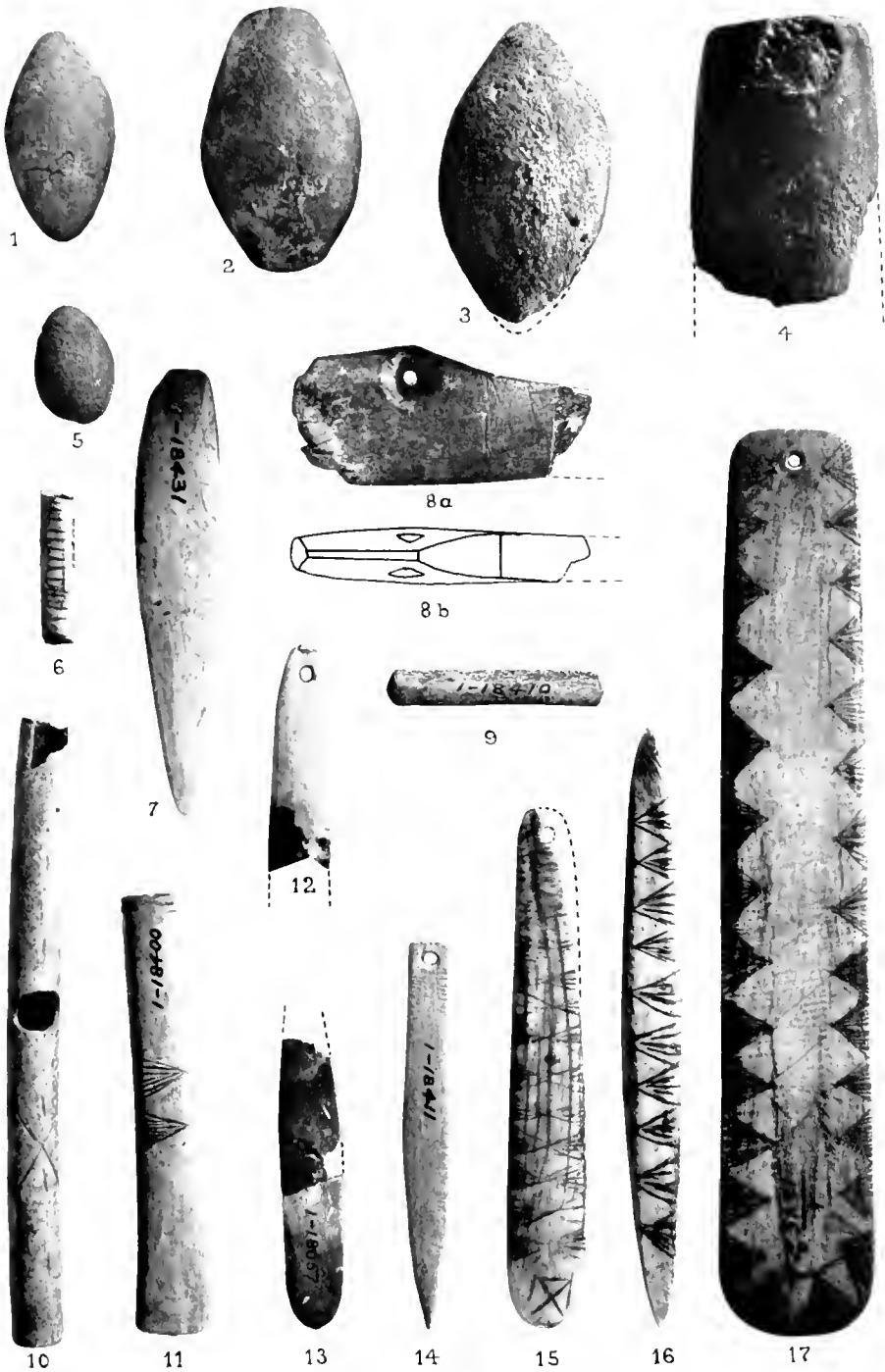
Figs. 12 and 13.—Head scratchers (?) found with remains no. 2 at a depth of two feet. Mus. nos. 1-18056 and 1-18057.

Fig. 14.—Head scratcher from a depth of $3\frac{3}{4}$ feet. Mus. no. 1-18411.

Fig. 15.—Head scratcher used by Yurok. Mus. no. 1-1161.

Fig. 16.—Hair pin used by Yurok. Mus. no. 1-2189.

Fig. 17.—Louse killer from Klamath river region. Mus. no. 1-1245*a*.



OBJECTS OF CLAY AND BONE

EXPLANATION OF PLATE 21

Objects of bone, horn, and shell from site 67. All figures .5 natural size.

Fig. 1.—Gouge made from the proximal end of a cannon bone. From a depth of $1\frac{1}{4}$ feet. Mus. no. 1-18446.

Fig. 2.—Bone gouge from a depth of 9 inches. Mus. no. 1-18444.

Fig. 3.—Horn harpoon from a depth of 3 feet. Mus. no. 1-18428.

Fig. 4.—Horn wedge from a depth of 3 feet. Mus. no. 1-18487.

Fig. 5.—Horn wedge from a depth of 4 feet. Mus. no. 1-18491.

Fig. 6.—Horn wedge from a depth of $2\frac{3}{4}$ feet. Mus. no. 1-18486.

Fig. 7.—Bone gouge from a depth of $3\frac{1}{4}$ feet. Mus. no. 1-18433.

Fig. 8.—Awl made from the humerus of a bird. From a depth of $3\frac{3}{4}$ feet. Mus. no. 1-18422.

Fig. 9.—Bone awl from a depth of $2\frac{1}{2}$ feet. Mus. no. 1-18420.

Fig. 10.—Abalone pendant found with human remains no. 7 at a depth of 3 feet. Mus. no. 1-17998.

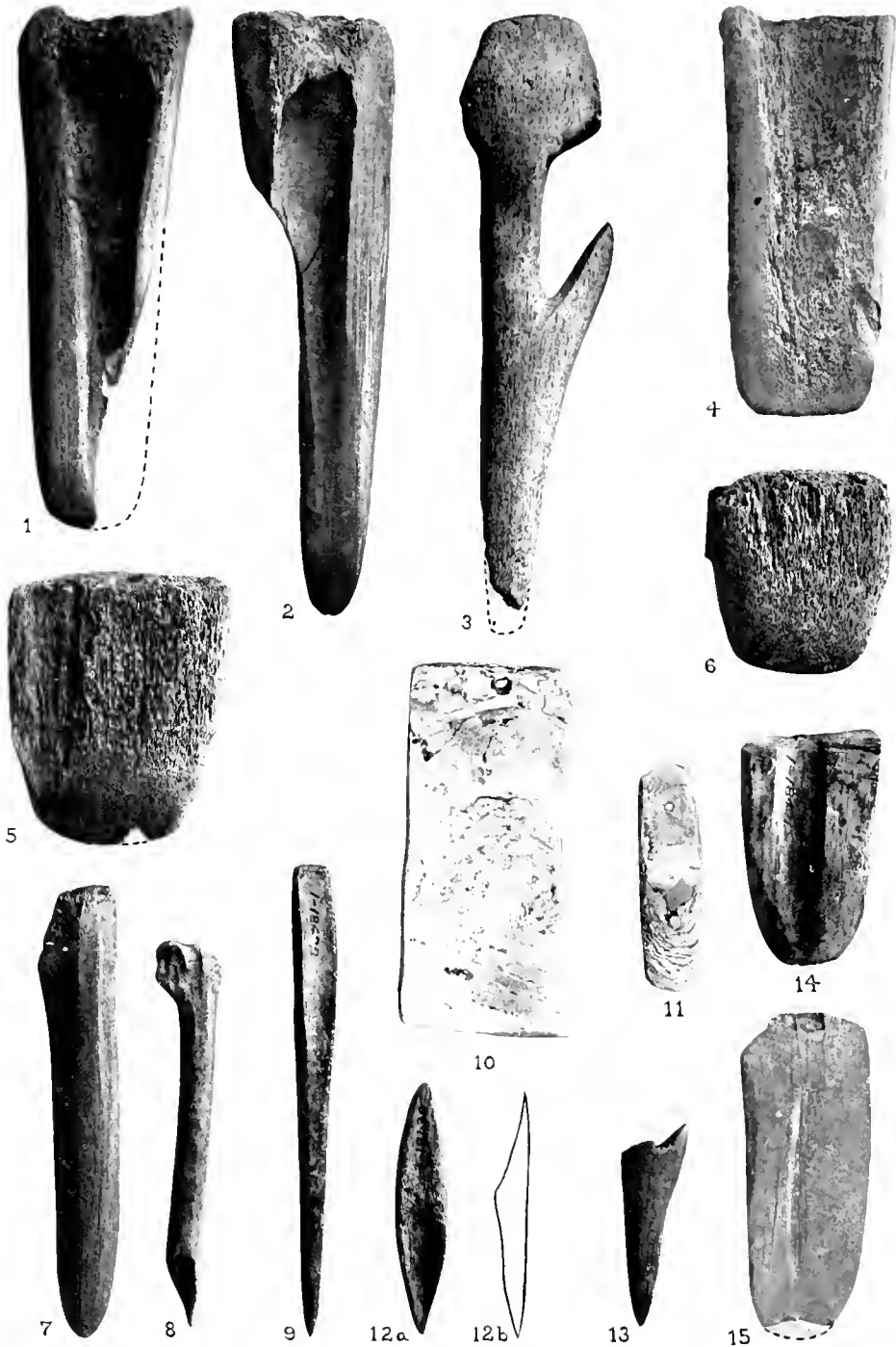
Fig. 11.—Abalone pendant found with human remains no. 18 at a depth of $3\frac{1}{2}$ feet. Mus. no. 1-18209.

Figs. 12*a* and 12*b*.—Horn barb of a harpoon from a depth of $3\frac{1}{4}$ feet. Mus. no. 1-18430.

Fig. 13.—Bone harpoon from a depth of $2\frac{1}{4}$ feet. Mus. no. 1-18426.

Fig. 14.—Bone adze blade from a depth of $2\frac{1}{2}$ feet. Mus. no. 1-18471.

Fig. 15.—Bone adze blade from a depth of 6 inches. Mus. no. 1-18469.



OBJECTS OF BONE, HORN AND SHELL

UNIVERSITY OF CALIFORNIA PUBLICATIONS
IN
AMERICAN ARCHAEOLOGY AND ETHNOLOGY

Vol. 14, No. 4, pp. 437-488, plates 22-23, 3 figures in text

March 11, 1919

THE WINTUN HESI CEREMONY

BY
S. A. BARRETT
"

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THE WINTUN HESI CEREMONY

BY
S. A. BARRETT

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INTRODUCTION

The Wintun Indians formerly occupied a territory lying, in the main, between the Sacramento river and the crest of the Coast Range of California.¹ While the subdivisions of the stock have not been exactly determined, there appear to have been three major languages, usually called the Northern, Central, and Southern. Within the Southern speech there were at least two dialects, whose distribution on the whole conformed to the topographical differences between the open Sacramento valley and the foothill and mountain region. These two dialectic groups may be designated as the Southeastern and Southwestern Wintun.

The culture of the Southwestern Wintun seems to be more closely related to that of the Pomo adjacent on the west than to that of the Maidu, who are separated from them by their own Southeastern kinsmen. This fact appears clearly in the arts and industries. The mortuary customs of both the Southwestern Wintun and Pomo favored cremation but omitted the celebration of a mourning anniversary. The Maidu buried the dead but held an annual "cry" or "burning" in their memory.

On the other hand, the ceremonial system of the two southern Wintun divisions, while of the general type common to the Indians of a large part of central California, appears to have had closer relation to the religious organization of the Maidu than of the Pomo. This is instanced by the Wintun and Maidu both practicing a Hesi ceremony, which the Pomo lacked.

Among the Southwestern Wintun of Colusa and Yolo counties, there still persists, or did until recently, something of the old organization of ritual dances, namely, a regular series of ceremonies extending from fall to spring. Formerly, this began and closed with performances of the *hesi hūya* about the first of October and first of May. Of late years, the initial *hesi hūya* has been replaced by a subsidiary rite, the *toto hūya*, but the spring Hesi continues to be made.

The object of all the ceremonies, but especially of the Toto and the Hesi, is primarily to insure plentiful wild harvests and secondarily to secure the health and general prosperity of the people. The performance of the Toto is believed to assure an abundance of "green foods," such as "Indian potatoes," by which is meant *Brodia*, *Calochortus*, and other bulbs, as well as the plants whose foliage is

¹ Present series, VI, 284-289, maps 1 and 2, 1906.

eaten. The Hesi is thought to produce "ripe foods" in plenty: grass seeds, manzanita berries, and especially acorns.

At intervals during the months between these two major ceremonies, there occur six others² of lesser importance, which are usually celebrated simply by each village, whereas for the Toto and the Hesi the people of neighboring villages are invited. These minor ceremonies are: *kenī*, *loli*, *sedeū* or coyote, *silai* or grizzly bear, *kūksū*, and *waīsallū*.

The ceremonies bearing these names occur in the order given and must be carefully distinguished from dances and dancers of the same names. In general, any dance may be introduced into any ceremony. In addition to the dances bearing the same names as the ceremonies, there are other dances, which do not correspond in designation to any ceremony. These are the *waima*, *sili*, *salalū*, and *gilak*. This makes about a dozen dances and eight ceremonies. The word for dance is *tono*, for ceremony *hūya*.³

What dances shall be made during any one ceremony seems to be left largely to the volition of the participants, particularly the director, who appears to be usually also a shaman of some reputation. The particular dance named after a ceremony is always made some time during the ceremony, but a selection of other dances is usually also given, without any set rule as to their order within the ceremony. Between the eight regular ceremonies, gatherings without especial religious significance and devoted chiefly if not wholly to pleasure, may also be held. In these assemblies any or all of the twelve named dances are made, but without association as a ceremony. Such an occasion is known by the same name as a single dance, *tono*, as opposed to the *hūya* or complex of dances made with a sacred purpose.

Of the two major ceremonies, the Toto and the Hesi, the latter is the more important. It lasts four days and nights, and is the one ceremony whose regulations all residents and visitors observe scrupulously. In recent years its particular form and exact date are determined annually by the spiritual visit of a shaman to the abode of the dead, *bole wilak*,⁴ where instructions are received by him from

² There may have been a greater number before aboriginal customs were disturbed.

³ *Hūya* means to gather or assemble. Strictly there is no Hesi dance but Tuya and Moki dances in the Hesi ceremony.

⁴ *Bole* is the ghost of a dead person; *saltu*, a spirit. The Southwestern Wintun distinguish their modern ceremonies, which contain a *bole* or ghost element (allied to the "Ghost Dance movement" prevalent about 1890 among the eastern Indians of the United States), from the older ceremonies which were free of such an element.

Katit,⁵ who controls the world at large, as well as the domain of departed human spirits.

The following pages describe a Hesi ceremony celebrated by the Wintun of the village Let, in Cortina valley, Colusa County, in the western foothill region of the great Sacramento valley, from May 5 to 8, 1906—less than a month after the earthquake that preceded the fire which destroyed San Francisco. The earthquake was felt strongly in Cortina valley and was interpreted by the Indians as a sign of the great displeasure of *Katit* with the world and its people. This ceremony was therefore attended more widely than had been customary for some years, and thus afforded an excellent opportunity for observation. The author attended the ceremony to record its salient features for the University of California; and, in the summer of 1907, was enabled to obtain from the old director and shaman, Salvador, or Sasa, whose trance had preceded the performance, explanations of a number of its features, as well as phonographic records of the speeches made by him in its conduct and of the several songs used.

Frank Wright, a man then of about thirty-five years, who spoke good English, served in this ceremony as Salvador's chief assistant, and on the latter's death a few years later succeeded him as principal director of the Hesi among the Wintun of the region. He furnished the author with information during the progress of the ceremony; and he served as interpreter for Salvador when the phonograph records were secured. As many as possible of the speeches and songs were transcribed by the author and translated for him by Mr. Wright on this occasion. In 1909 Dr. A. L. Kroeber had opportunity to verify these transcriptions and to obtain translations of the remaining records. This work was done by him with Mr. Thomas Odock, a South-eastern Wintun, who understands the Southwestern dialect of Cortina and is himself conversant with the Hesi through the instruction of Salvador.

Since the ceremonial dance system of the Maidu Indians of Chico was very similar in its outlines and in many details to that of the Southern Wintun, and since the former has been described by Dr. Roland B. Dixon,⁶ it is unnecessary to repeat here the features common to all the dances of the region. Such matters as the structure of the dance house, the use made of the center post, the performance of the *Moki*, and the like, which are practically the same for all the rituals of several ethnic groups, will therefore be assumed as familiar

⁵ *Katit* is a species of hawk.

⁶ The Northern Maidu, Bull. Am. Mus. Nat. Hist., xvii, 283-333, 1905.

to the reader, and the account that follows is restricted to descriptions of the ceremony witnessed and explanations secured from the Indians. In short, this paper is primarily a record of information that may never again be obtainable. It is not an attempt to elucidate a part of a complex religious scheme with reference to the system as a whole.

THE HESI CEREMONY OF 1906

A few days after the earthquake, Salvador suddenly went into a trance and on his awakening announced that he had journeyed to *bole wīlak*, "ghost world," and that *Katit* had directed him to announce to his village that on a certain day, which was Saturday, May 5, all must assemble for the Hesi, and to invite the Indians of the adjacent parts of the Sacramento valley, and the Pomo and Wintun of Cache creek, Sulphur Bank, and Upper Stony creek.

FIRST DAY

Friday, May 4, and the forenoon of the first day of the ceremony, Saturday, May 5, were spent by Salvador and one of his assistants in the preparation of ceremonial poles, head dresses, rattles, and the like. Most of these paraphernalia only needed rejuvenating, since they had been kept over from the ceremonies of the year before. The work on them was done in the dance house.

POLES AND MOKI CLOAK

These ceremonial objects consisted of the following pieces. There was a pole about 25 feet long, with a small bunch of feathers at its apex and near this a sort of banner of pieces of colored cloth. It was also wound about its entire length with cloth of different colors. This pole was to be erected in front of the dance house entrance and was the most important of the ceremonial objects. There were three smaller poles, also decorated with variously colored cloth, for use about the feasting table. Further, there were a short cloth-wound pole, and a cylinder of black cloth twelve or fifteen inches high and eight or ten inches through; both for the roof top of the dance house. All these objects were called *bole sak*, and while prepared without any special ceremony, were placed in their respective positions with singing and ritualistic observance.

The only other strictly sacred object used was the long cloak worn by the *moki* performer. In earlier times, this cloak was a net of eagle feathers and covered the wearer completely from head to foot, except that small openings were left through which he might see to make his way about. In the present instance the network was replaced by gunny sacking and the feathers by strips of cloth, so that the costume was but a sorry representative of the aboriginal form.

SETTING THE POLES

As each of the ceremonial objects was completed in the dance house, it was placed on the floor just south of the center post. They were then placed in position in the following manner and order:

The large pole was first placed in position in its permanent hole in front of the dance house. With an ordinary digging stick, Salvador, who will hereafter be designated as the director, removed the cobble stones with which the hole had been filled to keep it from crumbling from year to year. He then took a six-foot cocoon rattle, called *cōkōkai*, and rattled four times over the hole, crying in each case a long drawn out "*hī*." Toward the end of each call his voice gradually fell in volume. He stretched his rattle the first time toward the west, that is, the dance house, then to the south, then the east, and finally the north.⁷ In each instance he stood on the opposite side of the hole and extended his rattle across it. Thereupon he stepped back toward the east, and setting the end of the rattle on the ground shook it in time to the *teoli mūhī* song, which he sang until the pole was in place.

*Teoli Song*⁸

teo'lule	wile	teo'lule	hūyama	teo'lule
stand up	healthy	stand up	assemble	stand up

As the director began this song, his assistant commenced the ceremony of taking the pole from the dance house to place it in position. From just back of the center post of the dance house, he slowly walked completely around the recumbent pole and to the south of the butt of the pole (fig. 1, A). Here he stopped, faced west, raised his right hand over his head and slightly forward, and gave a long "*hī*," toward the end of which he let his voice, and simultaneously his hand,

⁷ West, south, east, north is the invariable ceremonial circuit of the Hesi, at any rate with reference to the directions faced.

⁸ University of California Museum of Anthropology phonograph number 14-1505; words transcribed by A. L. Kroeber, translated by Thomas Odock. Said to be the composition of the singer, Salvador. *Teoli mūhī* means "inanimate-object-standing-erect song," that is, pole or stump song.

fall very slowly, and blew two short blasts upon a double bone whistle, *tōka*. He then turned completely around, made another circuit about the pole, and repeated the same cry, motions, and whistling at the same point as before, but facing in turn south, east, and north. Next, he circled rapidly four times round the pole, continuously blowing short

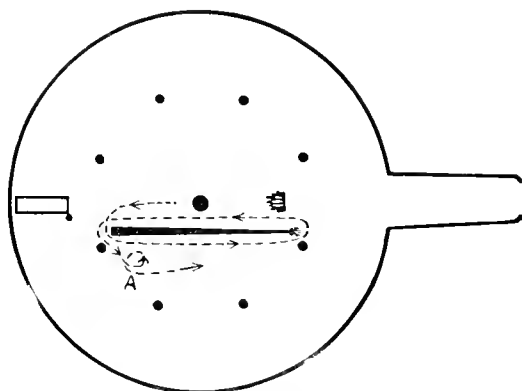


Figure 1

Ritualistic course of the director's assistant before removal of the long pole from the dance house.

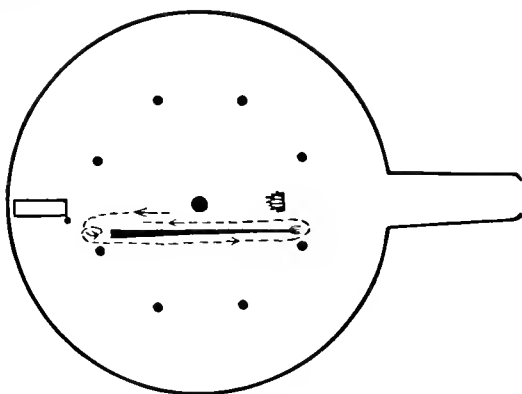


Figure 2

Second course about the pole.

blasts on his whistle, stopped at the foot of the pole, made a motion to pick it up, and turned completely around. This he also did four times (fig. 2). The fifth time, he actually picked the pole up, carried it out, circled four times about the hole prepared for it, stopped on the east, held the pole up toward the west, turned himself around, and repeated, extending the pole south, east, and northward. He now walked once

around the hole and pointed the base of the pole at it four times. The fifth time, he actually inserted the butt and tamped it firmly into place. He then joined the director, and the pair, facing the now erected pole, sang the following *teupa* song for several minutes:

*Teupa Song*⁹

The refrain, indicated in the text by "A," is:

teenti'	weni'	teenwe'r	teenwe'r
down	arrive	down-come	down-come

A¹⁰

wile leluro mi

A

mato wole na

A

tealal wole wole

tealal wole na weni

A

wile leluro

A

tealal wole wole Lami

A

mato wole wole Lami

A

wile leluro

A

mato wole Lami

A

tealal wole Lami

A¹¹

Crying "hē," the pair sang a few more words of the song, and then called "he, he, he, he," bending themselves toward the pole four times.

This entire act of setting the pole is said to be a notification to *Katit* and his associates among the dead that the preparations had been made and that the Hesi was about to be celebrated as directed.

The director now resumed his singing in the same place, while his assistant entered the dance house for the rain fetish and the food fetish. The former was the above mentioned four-foot, wrapped pole, tufted with cloth and feathers; the latter, the cloth-covered cylinder. Feathers tied to projections at the top of this gave it somewhat the appearance of a high crown. The bringing out of these two objects was attended with much less ceremony. The assistant merely carried

⁹ Record 14-1506, Odock-Kroeber transcription. Composed by Salvador.

¹⁰ This refrain frequently occurs three or four times over in the song where "A" has been written only once. Many of the other phrases are repeated.

¹¹ Glossary: *wile*, healthy; *leluro*, make, become; *mi*, you; *mato*, your; *tealal*, rose, pretty, beautiful; *wole*, floor of dance house; *weni*, arrive.

them on the roof of the dance house (blowing his double whistle continuously, while the director sang), and circled sixteen times about the roof around a diameter of twenty or twenty-five feet, holding the fetishes up in the four usual directions once after each four revolutions. However, he extended them toward the north four times instead of once. He then set the stick in the roof a little northwest of the center, slipped the cylinder over the stick on the roof, descended, still blowing his whistle, rejoined the director, and sang with him for a short time.

The director now went into the dance house and set about preparing his ceremonial cloak and certain dance paraphernalia.

Two assistants meanwhile set the three smaller poles at the ends of the feasting table, with the following procedure. All three poles were first leaned against the eastern end of the table and a sub-assistant, standing a short distance off, began to sing the *tcupa* song. He accompanied with a split stick instead of the cocoon rattle, but it is said that this substitution had no significance. The chief assistant passed contra-clockwise four times around the table and poles, turned completely round, reversed his direction, circled about four times clockwise, and turned again, all the time blowing rapidly upon his double whistle. He then took the two poles which were to be set east of the table, and carried them four times around in each of the same directions, waving them four times over the table after each set of circlings. He then passed four times around the holes dug for them, turned himself around again, motioned four times as if to set them, turned again, then put them in, passed four times around both, turned once more, and finally took a position beside the singer and accompanied him for a minute or two. They then both cried "*yū*," sang a few moments more, and ended with "*ha, ha, ha, ha*," bending toward the poles with each syllable.

The pole for the western end of the table was then taken up and set with the same cycle of movements and songs. This placing of the poles ended shortly after noon of May 5.

PREPARATIONS FOR THE FIRST DANCE

About two o'clock, the director went on the roof of the dance house and cried a prolonged and loud "*hē*" successively in the four ritual directions, waiting fifteen or twenty minutes between each call. This crying is said to have notified *Katit* as well as the Indians present that the preparations were complete. Returned to the dance house, the

director continued his work on the dance regalia until about sundown, when he ascended again to the roof and cried as before, this time with even greater force.

In the early part of the evening of May 5, the fire was lighted in the dance house and kept burning low. About nine o'clock the people of the village (the visitors having not yet arrived) assembled inside, while four men dressed themselves for the dance just outside the rear or western door of the house. Three of these men wore the *tūya* costume or "big-head," as it is currently called in English, and the fourth the *teclitū*.

THE TUYA

The chief feature of the *tūya* is a skull cap or *ana*,¹² of shredded tule (*Lol*) into which are stuck a large number of long, slender willow rods, decorated with feathers. These plumes are called *tecalal*, "roses," and the whole head-dress, *saltū*.¹³ This is often three feet in diameter and half as high. The plumes mostly pointed forward, and those in front downward, hiding the face of the dancer. Frequently also, small twigs are stuck into the front of the tule cap so as to hang down directly in front of the face and complete its concealment. Among the plumes, four, called *kūuc*, of extra length and with special feathering, are forced down through the tule cap and into the wearer's head net or *ticin*, thus serving to keep the entire head-dress in place. One or more skewers (*paka*) also hold the cap to the net. From another skewer at the back there hang a pair of long yellowhammer quill bands (*pīl*), almost reaching to the ground and floating out in the rapid motions of the dance. About the neck is suspended a small double whistle, *tōka*, usually made of wing bones of the chicken hawk.

The body of the *tūya* dancer is bare to the waist. Formerly, only a clout was worn below. At present, some article of civilized clothing is worn about the lower part of the body, with an improvised clout, such as a bandana handkerchief, tied over it. From the waist to the knee there is a kind of skirt made of thin cloth, on which are sewed variously shaped bits of cloth of different colors. This is a degenerate substitute for the feather skirt of the old days.

In ancient times, the exposed parts of the body were painted black with *sika*,¹⁴ paint of charcoal or black mud. There were no definite

¹² "Head."

¹³ At least so informants stated. As *saltū* means "spirit" they were evidently naming the head-dress as the most distinctive feature of the impersonation.

¹⁴ Southeastern Wintun: *sika*, grizzly bear; also the name of a ceremony among these people.

designs, whole areas such as the face or chest being colored, although narrow bands were sometimes drawn. This body decoration seems not to have had any special signification. At present very little painting is done.

A split stick rattle, *teakatta*, in each hand completes the outfit of the *tūya* dancer, except that in certain cases the wrists are bound together with a stout cord. Only certain individuals have their wrists tied. The Indian explanation of the practice is that it prevents cramps due to the violence of the dancing.

In this first dance, two of the three *tūya* danced in their tule caps, the feathered rods for the head-dresses not having been completed in time.

THE TCELITU

The fourth of the company, the *teclitū*, who was to start and stop the *tūya* dancers and direct their movements, wore neither the large head-dress nor the imitation feather skirt. He had on a down-filled head net (*pūtc*) and toward the back of the top of the head a tuft of magpie feathers (*toiti*) fastened with skewers. Across his forehead he wore a "short" yellowhammer head band (*talūk*) and about his neck a necklace (*hīlī*). His body was bare to the waist. In his left hand he carried a bow, (*nūn*), and in his right a quiver (*kolteis*), containing arrows (*nūko*). At least he carried them constructively. In reality, a skin folded over a stick represented the quiver full of arrows, and another stick the bow.

THE FIRST TUYA DANCE

At about ten o'clock, everything being in readiness, the dancers blew their whistles and the director and others who were inside the dance house cried "*hē*" and commenced a song, to which the dancers stepped in time as they circled about the point where they had dressed outside the dance house. This circle was about fifty feet in diameter, and after four revolutions, all went to the front door, where they rattled their split sticks loudly and finally entered. They then marched, without dancing, four times around the floor, going as near as possible to the side posts which divided the space reserved for dancing from that occupied by the spectators (see fig. 3). They next marched once around the center pole alone, after which the three *tūya* went out into the tunnel of the front door and later, upon receiving a

signal from the *teclitū*, danced back into the main part of the house, just as they would dance in during an ordinary dance, which is usually not preceded by the circling about the inside of the dance house.

The music for this dance was furnished by one or more air singers, called *koltū*, provided with cocoon rattles, several burden or chorus singers, called *teokūwin*, each provided with a split stick rattle, and one or sometimes two drummers, called *tīncl*, who usually stamp with their bare feet upon the large hollowed section of a log used as a drum (*teobok*). Sometimes the drummers use a large stick (*tok*), which they strike vertically upon the drum much as a workman uses a tamper. The positions about the drum of these three classes of musicians are shown in figure 3; the air singers are designated by two small triangles, the chorus singers by a number of small crosses, and the drummers by two squares upon the drum itself. The air singers carry the melody, accompanying it with the swishing sound of their cocoon rattles, while the chorus adds volume with a loud "*he, he, he*," accompanied by the clack of the split sticks upon the palms of the left hands.

The signal to begin is given by the *teclitū* with a motion of his quiver. After the singing of what might be termed an introductory verse, he signals one of the *tūya* to dance. This the dancer does by suddenly whirling around from his position in the tunnel and moving very rapidly with high steps back and forth between the two side posts nearest the door (fig. 3, MN). He dances in a bent posture with his stick rattles extended before him and crossed lightly near their free ends. Thus, the lower half of the upper and the upper half of the lower rattle form the bases upon which the other halves of the rattles strike in their vibrations. They are shaken at frequent intervals, the dancer usually squatting very low as he rattles. As he reaches either end of his short course, he squats low and whirls suddenly about and dances rapidly to the opposite end. His long yellowhammer streamers are thus thrown out and float and flutter behind him as he moves from end to end. At the same time he shakes his head from side to side in time with the music to keep the long plumes of his head-dress trembling, especially when he rattles.

The *teclitū* meanwhile stands at the back of the dance house, near the singers, and, when he deems it proper, gives the signal for the change in the dance. This he does by running up to the singers with his "quiver" high in the air and bringing it suddenly down with a loud and long "*hīyō*," the chorus singers bowing and shouting in unison with him. The air singers, however, continue their melody uninterruptedly, and the chorus is immediately taken up again. The

teclitū then dances, with the high rapid step already mentioned, back and forth directly in front of the singers' space (fig. 3, xy) for a few minutes, after which he runs rapidly to the singers and shouts "*hīyō*" one or more times, bringing his quiver down and bending his body as before. Most frequently he gives this signal as "*hīyō, hīyō, hīyō, hīyō*," the last utterances being longest and most emphatic. Again the chorus singers shout in unison with him, all facing the air singers. The latter still continue their air and are again rejoined by the chorus as the *teclitū* resumes his dance, which he does for some minutes over the same course as before. After this he moves out along the north side of the dance house (fig. 3, xz), beckoning with his quiver toward the *tūya*, who all this time has been dancing rapidly back and forth over his course between the two front side posts of the house.

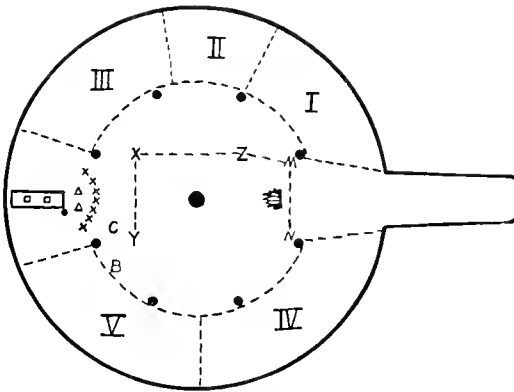


Figure 3

- I Wintun visitors from Indian creek and Little Stony creek.
- II Pomo visitors from Sulphur Bank.
- III Wintun visitors from Long valley and Cache Creek.
- IV Wintun visitors from the Sacramento river region.
- V Host villagers.
- Drummers.
- Δ Air singers.
- × Burden singers.
- B Fire tender.
- C Moki delivering ceremonial speeches.

Now the *tūya* moves out along the north side of the dance house (fig. 3, xz), until he meets the *teclitū* at z nearly opposite the fire. Here the two turn to face the fire and dance in place for a considerable time, this dance consisting simply of a rapid and forceful stamping of first one foot and then the other, the bodies being held erect. The chorus increases the volume of its shouts, and the drummer beats

harder. This loud music continues until suddenly the *teclitū* wheels about and runs to the singers with the same motion and cry of *hīyō* as before, the *tūya* also wheeling about, running to his place between the two front posts, and resuming his former dance.

From this point on the same cycle is performed, except that upon this occasion the director finally dances to the south side and is met by the *tūya*, the two dancing there as before on the north side. Finally the *teclitū* again wheels suddenly, and runs to the singers with his usual cry of "*hīyō*," and calls "*ha, ha, ha, ha, ha, ha*," letting his voice fall gradually. This marks the end of this particular set of the dance.

The *tūya* immediately resumes his stooping posture in the entrance tunnel, from which presently he, or one of his fellows, may be called forth to dance the same set over again, or from which, if the dance is to be ended, he may be summoned, either by the *teclitū*'s voice or by a tap on his back by the quiver, to return into the main part of the dance house.

In the case of the dance ending, he backs, in his stooping posture, into the house until he reaches a point between the first two side posts, when he straightens up and walks at a medium pace to a point north of the center post. Here he whirls, rattling, walks to the corresponding position south of the center pole, whirls and shakes his rattles again. Then he walks out the front door and, once outside, runs to the dressing place, which at night is near by, but in the day is in the brush far enough from the dance house to be out of sight. In passing out, he lays his rattles over his head to press down the long plumes, so that they may not catch on the sides of the tunnel and break off. In entering he also backs in, since the plumes project forward.

Only one of the *tūya* dances at a time, and usually each performs but once in any one dance, going through the above described set or cycle completely. This requires from fifteen to twenty minutes. If there are several *tūya*, the second is usually called by the *teclitū* immediately after the first has returned to the tunnel, and so on until each of them has completed his set. When touched by the *teclitū*'s quiver, they leave the dance house as described above, but the song is kept up.

As soon as the *tūya* have passed out, the chorus singers and the *teclitū* dance out, with a short, high, sidewise step, in two lines, one along the north and one along the south side of the house. The step consists in simply lifting the feet very high and bringing them down with force, and in no case does such a step move a dancer more than

six or eight inches. Having finally reached a point opposite the fire and center post, the two lines, facing each other, dance in place for perhaps a minute or two, using the same step but without the side-wise progression. Suddenly, the *teclitū* runs rapidly to the air singers, who are still singing in front of the drum, raises his quiver, and brings it down violently with his usual cry of "*hīyō*," to mark the ending. Throughout this dance, the air singers are accompanied only by a low "*he, he, he*," of the dancing chorus.

The *teclitū* immediately runs back to his position in one or the other of the lines of dancing chorus singers and the dance continues. In fact, the chorus has not ceased dancing during the time he has been running back and forth. After another minute or two, they all start, at a signal from the *teclitū*, to dance back sidewise toward the drum. When about half way, they suddenly break and run to a position in front of the air singers, where they all shout "*hīyō*," bending their bodies almost double. This marks the end of the dance and the music ceases. The *teclitū* walks out leisurely.

At frequent intervals during all this dancing, the spectators cry a prolonged "*ō!*" to signify their approval of the dance. At the very end they all call "*ō!*" loudly at least once, and some repeat the cry several times, proportionate to their satisfaction.

One of these dances lasts usually from twenty minutes to half an hour or considerably more, its duration depending chiefly on the number of *tūya* participating. The motions are violent, and a dancer is usually more or less exhausted at the end of his set, and cannot continue throughout the night. At the present time, when the population is reduced, and dancers few, a considerable intermission between one dance and the next is therefore necessary. Anciently, however, several sets of *tūya*, each with its *teclitū*, are said to have been available, so that as one set finished, another was ready to take its place. Thus the dance was kept up almost continuously throughout night and day, intermissions for feasts being ordinarily the only breaks in the continuity of the dances. The first *tūya* dance, on May 5, having three *tūya* and a *teclitū*, lasted about an hour.

THE MOKI DANCE

At the conclusion of the *tūya*, the director put on his long cloak, thus becoming *mōkī* and, as the dancers left, commenced the first of his ceremonial orations. He danced four times around the inside of the house, constantly blowing his double whistle, and finally halted

near the rear of the dance house opposite the *koīmēru* or fire tender. The positions of the two are shown in figure 3, c, b. Here he delivered a long speech in a high-keyed, squeaky voice, occasionally bowing forward or to the sides or settling slightly downward under his cloak, these motions being for emphasis and apparently in lieu of gestures with the hands, which are the ordinary Wintun means of emphasizing speech. This oration was intended for all, but was addressed to the fire tender, who frequently cried "ō!" in approval. On completing his oration, the *mōkī* circled around the inside of the dance house once and finally went to a place near the drum and removed his long cloak.

Mōkī, as the director is called when covered by his long cloak and speaking in his high voice, is the same term as is used to designate a class of clowns, who in certain parts of the ceremony amuse themselves and the spectators by mimicking dancers, singers, drummers, and spectators.

The *mōkī*, in modern times, represents a messenger from the keeper of the abode of the dead, delivering his messages and instructing the people in order that they may be provided with an abundance of food, the supply of which depends upon their conduct. He also addresses himself to the keeper of the dead and pleads, as it were, the cause of his people. It could not be found that he represented a mythical being.

After the *mōkī*'s first speech, an intermission of about an hour followed. The spectators engaged in conversation most of the time.

ORATION

Then, a number of visitors having arrived, the director rose and, this time without his *mōkī* cloak, delivered another oration—a speech of welcome. This he subsequently spoke into a phonograph, as follows:

*Tabat tē'wi, Speech of Welcome*¹⁵

ō Yes,	ō yes.	pīūrū ¹⁶ All	botī stay.					
pīūrū All		pīūrū all	hote stay,	colec listen	mīlet you		lomūle glad,	
apateū my uncles,		hūm	maiin chief's wives or sisters,	hūm	sektō chiefs,		ma	
īlaiinma my children.		pīūrū All	hote stay	ēū thus,	pī	bo	teū I	ēū thus,
							pī	

¹⁵ Record 14-1518. Transcribed by the author and translated by Salvador and Frank Wright.

¹⁶ *Pīūrū*, said to be an esoteric term signifying "all," *are* in ordinary speech.

bo	teū I	ēū thus,	bo	teū I	pī	ēū thus,	bo
ete one	ma	tēwe word	bām	pampa two	ma	tēwe words,	sī
milet You	lomūro glad		apatenba my uncles,	nat Me	hūn		lōiba girls
nat me	hūn	pī	ma	wīn see	tava .		dihūse Wake up,
dihūse wake up,	teū I	dihuse wake up,	teū I	pītara ,	ōū yes	pītara	
bote stay,	ō yes	pītara	bote stay,	ēū this	bū .	wōī Thanks!	ēū Thus
rū	hūya feast	ēū this	kewela house-in,	ēū this	walela floor-on	pīla there in	pūrū all
pūrū all	bote stay	elec listen	ūn ,	elec listen	ūn ,	manū my	
tēwe words.							
	poi Who	elēlaō none	sektun chiefs,		elēlaō none	maino chief's wives,	
elēlaō noue	po who		pomī	let	pūtī will do that	ū	
pūtī	ūrbe ¹⁷ Nothing		wīn people	līptāra dying,	wīn people	hatara going,	
pīla there	pe	ēū	tī	pīla there	wē things	ūn ,	
wē things	ūpīretī everybody,	ō yes	ūpīretī everybody,	ō yes	ūpīris everybody,		
a	pele we	ēū this	ra	wilak world	wilak world	Labe villages,	
eūla then	nō go	ībo	ewīla there	pūel ¹⁸ east	tībo	eūla there	
waiel ¹⁸ north	tībo	eūla there	nōmel ¹⁸ west	tībo	eūla there	wor ¹⁸ south	
īna	bo	ōū ,	pūtara Thus	botī be	wē things	ū	
pūtara thus	botī be,	pīla here	pele we	pūn thus	botī remain,	eū this	
bote remain	pele we	bo' stay,	elecū nothing	ūpūra (I) tell	milet you,	milet you	
lōmūra ¹⁹ glad,	milet you	ektū chiefs	ma		lōmūra glad,	milet you	
main chief's wives	ma	lōmūra glad,	milet you	scribama boys		lōmūra glad,	

¹⁷ *Urbe* means "nothing" in the Central Wintun dialect. Southwestern Wintun says *elec*.

¹⁸ *Pūi'be*, *waibe*, *nombe*, *woribe*, east, north, west, south.

¹⁹ *Lōmī*, "glad"; *ōūpīri bolī* "glad" in ceremonial speech.

wē "thanks"	ūpīretī ²⁰ tell one another,	ō "Yes"	ūpīretī tell one another	ō "Yes"	ūpīrī tell one another	
sa .	pele We,	pele we	ōū "Yes"	pīrēsa say	ūpūto tell you,	ūpūra tell
momūpīreta ²¹ everybody,	ūpūra tell	cok ²²	pīlita	heteama how many	pele we	
eūsai do that,	pīūsa do that,	pele we	pīūsa do that	piula	pelepo we ourselves	
loitano girls themselves	ēlēlaū none	po who	seri boys	tana dance,	ēlēlaū none	pī these
temano dancers themselves	ēlēlaū none	pī this	yōhos ²³ announcer,	ne	ēlēlaū none	
pī this	lūpī tūya	tono dancers	ēlēlau ²⁴ none	pīūsa do that,	pele we	
pīūsa do that,	ōū yes	sa	pele we	ōū	petara	wē "thanks"
ūpītara call one another,	lan "brothers, sisters"	ūpītara call one another,	tē "sons"	ūpītara call one another,	o yes	
tai "nephews, nieces,"	o yes	tai "nephews, nieces"	ūpīreti call one another,	ūpīreti call one another,		

SECOND TUYA DANCE

About midnight, came another *tūya* with his director, and a second dance was held in exactly the same manner as that previously described. This ended about half past twelve. The people remained to talk and amuse themselves in the dance house during the remainder of the night or, as they chose, went to their houses to rest before the ceremonies of the following day.

SECOND DAY

SWEAT DANCE

A little before sunrise, several men, particularly those who had participated in the dances of the night before, gathered in the dance house for the "fire" or "sweat" dance, called *tcūppa*. A very hot fire was built and the doors and smoke hole tightly closed. The

²⁰ *Upīretī*, *upīrita*, and *tīpīrita* are said to be esoteric terms meaning "tell one another," *pīrtī* signifying "each other" in common speech.

²¹ *Momūpīrēta* is an esoteric term for *teaket*, "everybody."

²² *Upūra* is a ceremonial term, while *cok* or *coko* has the same signification in common speech.

²³ The *yōhos* is the announcer who delivers an oration from the roof of the dance house as visitors approach the village.

²⁴ *I.e.*, the *yōhos* is not here, nor are the *tūya*.

dancers stripped themselves of all clothing except an improvised clout and danced slowly about the fire in time to the song and rattle of a single singer. Their motions were very slow and the feet raised but little off the ground. The body was swung from side to side considerably, so that at each step a different part of the body was presented to the heat. The dancers also bent over the fire first forward and then sidewise in such manner as to expose themselves to the heat, while each rubbed his body rapidly. At the end of perhaps twenty minutes, during which the temperature had grown intense, the dancers, now in profuse perspiration, rushed out and plunged into the creek. In plate 2, figure 1, two of these dancers are shown returning after their plunge.

RECEPTION OF VISITORS

Nothing else took place until the entry of the guests. These were Wintun from the Sacramento river, largely or wholly from Grimes; from three villages along North Cache creek and Long Valley creek; and from three villages along Indian and Little Stony creeks to the north. The only people other than Wintun who came, were a few Pomo from Sulphur Bank or East Lake, one of the arms of Clear Lake, who are more or less in touch with the Wintun living along North Cache creek.

All the visitors had arrived the evening before and made their camps at short distances from the village. Those from the west and north camped a short distance northwest of the village, while those coming from the Sacramento river, camped to the east.

About half past eight, the director went on the roof of the dance house and gave his long cry "*hē*" to the four cardinal points, to call in the visitors. It is doubtful whether this cry could have been heard, but at any rate in a short time those camped to the northwest came in sight. Meanwhile the "captain," as he is called, that is, the chief of the host village, the one who exercises whatever there are of gubernatorial functions, joined the director on the roof of the dance house. He took his station just below the smoke hole and sang for a considerable time, accompanying with two cocoon rattles. When the visitors from the northwest appeared, the director gave several of his long-drawn cries of "*hē*" toward them. The "captain" continued his song. On arriving at the outer edge of the settlement, the visitors halted, left their horses and traveling equipage, and advanced toward the dance house, the inhabitants of each visiting village forming in

single file, each group led by its captain who carried a present from them to the people of *let*, the host village. These lines coming one after another formed a long continuous file of people with only slight breaks between the successive groups. The captain of the host village continued to sing on top of the dance house (pl. 2, fig. 2) until the head of the column neared the entrance, when he descended and led the way, still singing, into the dance house. He led the column contra-clockwise around the fire and center pole, and finally took up his station near the drum, the visitors going directly to the particular portion of the spectators' areas allotted them at the side of the dance house. As each column filed past the singing captain, its leader stopped and presented him with the gift brought by his people for those of the village giving the ceremony. These gifts the host captain placed near the wall behind the drum where most of the dancing paraphernalia were kept. The presents consisted usually of strings of beads, though sometimes ropes of native milkweed fiber or other objects were brought.

The last of the column was a very old shaman or dance leader from the village of *Tōktī* on North Cache creek. He came at some little distance from the rest and instead of going directly with his people to the side of the dance house, he moved, singing and rattling with cocoons, four times contra-clockwise around the inside of the house and then once in the same direction about the center pole alone, before seating himself with his companions.

At last, all visitors being seated, the host captain brought in a large basket full of acorn soup, *yīwit*, and a large cake of black meal, *hūlc*, made from the seeds of one of the wild plants of the region. These he presented to the leader of the visitors, who saw to it that each one received his share.

The host captain then rejoined the director on the roof of the dance house, there to await the arrival of the people from the Sacramento river. Presently shouting was heard from behind a hill to the south-east, which was a signal that the visitors were on their way from that quarter, and also that they were dancing into the village instead of filing in like their predecessors. Upon hearing the shouts the director gave his usual long "*hē*," and the captain began to sing again. Presently a *tūya* dancer, followed at a little distance by his *teclitū*, came over the brow of the hill toward the village, followed at some distance by their captain and the remainder of the people walking slowly in single file.

TUYA DANCE

On arriving at the door, the two dancers conducted themselves as is customary. The *tūya* stopped before the door and shook his rattle several times. The *teclitū*, however, did not immediately enter, as is the custom in an ordinary dance, but also waited without until the last of the visitors from his region had been led in and properly placed and provided with food by the captain of the host village. The singers then assembled before the drum, the *teclitū* entered, and the dancing proceeded as on the evening before.

CLOWNS

With this dance was introduced a new feature. As the dance progressed, several men, apparently without any special dress or preparations, went about in the dance house speaking in a very high-keyed voice, similar to that of the director when he becomes *mōkī*. They made all manner of fun of the dancers, the singers, the drummers, and any of the spectators that they might single out. These clowns are also called *mōkī*. As above stated, however, it is maintained by the Indians that the office of these clowns is purely that of amusing the people.

The antics which these clowns perform are sometimes genuinely ludicrous. For instance, at one time later in the day, when the captain of the host village was singing as he marched slowly about the inside of the dance house, one of the clowns stationed himself before the captain and marched slowly backwards in step with him, while delivering joking remarks concerning the latter's ability to sing and the particular song he was voicing, and in general endeavoring to give a comical turn to what otherwise would have been a most solemn ceremony. This did not seem in the least to disconcert the singer, who continued to sing in his gravest manner; but his song was not received with the usual seriousness.

These clowns enter into ceremonies among the Pomo to the west, where they are called (by the Eastern Pomo), *katsa'tala*²⁴ and act much as here described, although the Hesi ceremony is not known. The Maidu clown is called *pcheip*.²⁵

The dance having been completed, the captain caused to be brought in several baskets of acorn soup and an abundance of other food, and all feasted in the dance house.

²⁴ Sergeants-at-arms, fine collectors, and clowns. Present series XII, 417-421, 1917.

²⁵ R. B. Dixon, The Northern Maidu, Bull. Am. Mus. Nat. Hist., xvii, 286, 310, 315, 318, 1905.

ALLOTMENT OF DANCE HOUSE PLACES

The parts of the dance house (*Lūt*) used for special purposes were in this ceremony as follows. The portion of the floor (*wole*) within the line of side posts was reserved for the dancers and singers, the singers occupying the space in the rear and immediately in front of the drum. Different dances were held in several parts of the floor as described previously and below. The space back of the side posts (*dorī*) was divided into five sections of varying sizes, each allotted to the spectators from a certain place. In figure 3 are shown these five divisions.

SINGING BY INVITED INDIVIDUALS

After the feast held in the dance house, the people gave themselves over to conversation and visiting for some time, while the clowns continued their business to the amusement of all. Finally the individual singing began, partly, at any rate, as a result of the clowns' actions. They are privileged to levy a fine on one who does anything contrary to custom, and especially upon those who show displeasure at their ridicule or refuse to do their bidding. When, therefore, they ask some one to sing, he must accede or pay a fine. It is said that nearly all individual singing is due to the commands of the clowns.

A singer provides himself with two short cocoon rattles which he uses one in each hand. They are grasped firmly between the thumb and first finger and are shaken by means of a movement of the wrist. Another movement is given them by means of the second, third and fourth fingers, which tap upon the handle as it projects down into the hand. The invited performer sings for some minutes wherever he happens to be sitting, then rises and walks to a position on the south side of the dancing area and a little back of the center pole (fig. 3, Y). Here he sings for some minutes, pacing back and forth in one direction or another over a short course. He then walks rapidly over to the point marked N in figure 3, where he again sings for some time; then goes to M and sings for some minutes; then to X, and finally to Y again, singing at each of these stations as described. He then either goes directly to his seat, or repeats the cycle. In any case, when he arrives at his seat he turns completely around before sitting down, after which he continues singing for some minutes.

While this is the commonest method, some singers go round and round the dancing area counter-clockwise, moving continually with a slow step and not stopping at the four points above mentioned.

When a singer begins, a loud shout goes up, each person in the house shouting "ō." When he arises, a still louder chorus of the same indication of approval is heard; and at frequent intervals during the song similar shouts from one or more people in different parts of the house are audible. On taking his seat, he is greeted again, and on the ending of his song, he receives the loudest applause of all.

Any one may be asked by the clowns to sing and is expected to respond. But in practice only men known to be proficient singers are called upon. Their songs are said to be private and more or less hereditary from father to son. It is asserted that such songs are not and were not formerly learned from the inhabitants of the ghost world or the keeper *Katit*, though the latter teaches other songs. The individual or private songs show some variety. Three examples follow. The words of these were written down during the ceremony, but it proved impossible to obtain phonographic records.

Individual Song 1

hōlūū dū hwēē	hōlūū dū hwī (4 times)
watōhōōna wīlak mee	hōlō wee walēi hēme (4 times)
halūū dū hwēi	halūū dū hēha (4 times)
(Repeat)	

Individual Song 2

nanīa hōā'hīla hīhye	nanīa hōā'hīla hīhye (4 times)
wīnūi hīla hehye	wīnūi hīla hehye (4 times)
wīlēē hīla hehye	wīlēē hīla hehye (4 times)
wai wai hīla wēwē	wai wai hīla wēwē (4 times)
(Repeat)	

Individual Song 3

haiē walēihō	haiē walēihō (twice)
wīlwala walēihō	
haiē walēihō	haiē walēihō (twice)
(Repeat)	

It will be seen that these songs are simple. Some consist merely of a phrase or two repeated a definite number of times, usually four. Often this set is repeated over and over again throughout the song. In more elaborate songs the first set or "stanza" of a four-times repeated phrase is followed by another with more or less different words, and so through perhaps three or four stanzas, after which the whole group of stanzas is indefinitely reiterated, sometimes for half an hour or longer. It is maintained that the words have no meaning, though now and then a word, such as *wīlak*, "world," is recognizable. It is possible that more of these words may at one time have had meanings, but that, like parts of the speeches of the *mōkī*, they are esoteric or archaic. In the speeches, however, only some of the terms are of this

nature, and the bulk of the orations is intelligible to the Wintun public. However, it is certain that in both songs and speeches some at least of the terms used are esoteric and have meanings definitely known to the initiated.

VISITORS' TUYA DANCE

About half past eleven, two of the visitors from the Sacramento river, a *tūya* and a *teclitū*, performed the second dance of the day, which lasted some twenty minutes.

FEAST ORATION

After this, the midday feast was served at the long table under the trees near the dance house (pl. 1, fig. 4). When the meal was ready, the director made a long speech of welcome exhorting the visitors to eat heartily and enjoy themselves.

*Ba Tecma, Food Speech*²⁶

o'u, yes
 we'reti (3), come on!
 we'reti, come on!
 lo'iba we'reti (2), girls come on!
 se'riba we'reti, youths come on!
 i'lain we'reti, children come on!
 ba'La huya'lis (2), at eating assembled
 e'u ba'La, at this eating
 e'u ba'La huya'lis, at this eating assembled
 e'u kori'La huya'lis, at this *pinole* assembled
 e'u yiwi'La huya'lis, at this acorn-soup assembled
 e'u tipa'La huya'lis, at this acorn-bread assembled
 mile' o'upi'ni, you say yes to one another
 o'upini (2), say yes to one another
 pi'La piu'roti, will be doing that
 ta'i mpi'reti, will (call one another) sister's child (or grandchild)
 pi ba'La, at eating that
 wile ba'La huya'ro, at healthy eating assemble
 pi ba'La huya'ro e'u ba'La huya'ro, at eating that assemble, at eating this
 assemble
 e'u tea'lal ba'La huya'ro, at this pleasant eating assemble
 e'u wile ba'La huya'ro, at this healthy eating assemble
 pi'La o'u u'pitaro ba'ti, at that say yes to one another's eating
 o'u pitaro ba'ti (2), say yes to one another's eating
 we yu'pini, rejoice at one another
 we a'paten u'ro, rejoice: "my mother's brother"

²⁶ Record 14-1498, Odock-Kroeber transcription. Each line of the text represents a phrase or separate ejaculation. A number indicates that the phrase is repeated so many times.

we ta'teu u'ro, rejoice: "my father"
 we La'nten u'ro, rejoice: "my younger brother"
 upu'taro ba'ti, say thus to one another's eating
 weyu'ti, rejoice
 mile't ba'mahem, (at) him who causes you to eat
 mile't do'ihem, (at) him who gives to you
 ba do'ihem, (at) him who gives food
 e kori' do'ihem, who gives this *pinole*
 e tipa' do'ihem, who gives this acorn-bread
 pi'La lomu'ti, at that be glad
 pi'La lomu'ti pi, at that be glad
 piu weyu'ro, so rejoice
 mile't weyu'ro, rejoice for you
 ta'iteu ba'uro, my sister's children (eat?)
 La'nteu ba'uro, my younger brothers (eat?)
 pi'uro ba'ti (3), doing so eat
 tap mile' ila'in, you children
 mile' lo'iba, mile seri'ba, you girls, you youths
 mile' ila'in, you children
 pi'uro ba'ti, so eat
 pi'uro katu'les, so satisfied
 katu'ro weyu'les, satisfied rejoice
 katu'ro weyu'les, satisfied say yes
 u'no te'we, his word
 u'no te'we u'no so'ko, his word, his teaching
 u'i mile't sokohem, he who teaches you
 pi'uro ba'ti (4), so eat!

The feasting was in the following order. First were served the visitors who arrived earliest at the village, that is, as many as could be seated at the table, the remainder eating at the second table. Third came the visitors who had arrived later, and finally, at the fourth and last table, the people of the home village ate. The food was all prepared by the women of the village in their houses and was brought to the table by three or four men. In general, this serving of food was under the direction of the fire tender of the dance house.

FURTHER TUYA, SWEAT, AND MOKI DANCES

Immediately after this meal, which ended about two o'clock, a third *tūya* was held in the dance house, along the same lines as those previously described. Later, at half past five, a fourth dance was made. An evening feast with attendant speeches began at six.

After this meal, a hot fire was again built in the dance house and three men, who had participated in the dancing during the day, danced another fire or sweat dance to the music of the two singers. Toward the last of their dance, the *mōkī* danced once around the floor, then

outdoors, and several times around the high pole in front of the dance house, the while blowing his whistle constantly. Soon after he left the dance house for his dance about the pole, the three dancers ran out to the creek, swam for a few minutes, and returned to the house.

About ten o'clock, the first *tāya* dance of the night was held, being followed before morning by several others, all about the same as those described.

THIRD DAY

MORNING DANCES

About five in the morning another sweat dance was held, immediately after which the *mōkī* danced, as before, slowly about the dancing floor and out the front door, and then performed a ceremony about the high pole (see pl. 1, fig. 3). He danced about the pole several times in a sort of shambling trot, finally coming to a halt on its east, that is, on the side away from the dance house, facing this. Here he settled slowly down, waving his cloak with his hands, until he had come to a squatting position, where he remained for some seconds blowing his whistle. He then slowly arose with the same fluttering of his cloak, circled the pole, and again settled down, this time facing toward the south, he being on the north side of the pole. This circling and facing were repeated in the usual sequence, that is, east and finally north. He next danced over to the table, around which he danced four times (pl. 1, fig. 4), after which he danced about the poles at the east end of the table. Finally, coming to a stop to the east of the poles, and facing them and the table, he settled down as he had done about the high pole in front of the dance house. He then danced around to the west end of the table and once around the high pole there, stopping to face it from the west. Here he again settled, after which he danced back into the dance house, passing on the north side, or contra-clockwise along the dancing floor, to the drum where, as usual, he removed his cloak.

About half past six, breakfast was served at the long table in the usual manner after another speech by the director.

SPEECHES OF INSTRUCTION

About half past nine, the director took up a position in front of the dance house and near the high pole and here delivered a long oration. This oration, as also those that followed during the afternoon, exhorted the people to live properly and in accordance with the instructions

recently received by the director from *Katit*. These instructions were to recount to them the history of the world and outline the reasons why it was in its present condition; and also to tell its future and the ultimate destiny of mankind.

From a summary of the ideas expressed in these speeches, as rendered at the time by one of the Indian auditors, it appears that the conceptions of the Wintun in respect to the world are as follows.²⁷ The world originally had a different form, but in those days there were comparatively few people. Later, as its population increased, the earth was stretched to accommodate the people and for a time all things went satisfactorily. Again the population grew, the world became crowded, and the earth was stretched; thus it has up to the present time been enlarged four times. The last time its form was materially changed and the present mountains were created. There is to be a fifth and final upheaval and stretching, which will bring these mountains down and render the world a level plain as is the Wintun abode of the dead. To be sure, the Wintun population has, since the coming of the whites, greatly decreased, but the influx of Americans has greatly increased the population of the region, so that the country is very crowded at present, and it is expected that this final great world change may come at any time. When the earthquake of April 18, 1906, was felt, it was considered part of this final upheaval, and especially was the belief confirmed when the Wintun saw the effect on upper Cache creek, which drains Clear lake. Here a body of earth, large enough to block the passage of the stream, slid into the canyon, backing the water up into the lake itself. After a time the pressure broke through the dam and carried the debris down in a great flood through Capay and the other valleys along the lower course of Cache creek. The stream lies but a few miles to the south of the Cortina valley village and the flood had occurred only three days before, so that considerable excitement was still running among the Indians at the time the director was preaching to them.

Another feature which had recently inspired the Wintun of the region with awe was the immense mass of smoke which was visible to them from the San Francisco fire. Some said that at night even the glare of the fire could be seen. By many it was feared that this was the final great world fire, which, in common with the other Indians of this part of California, they anticipated.

²⁷ A short note in the *Journal of American Folk-lore*, XIX, 324-325, 1906, gives the substance of the following account.

OTHER MORNING DANCE

About eleven o'clock, four of the Sacramento valley men danced again. As before stated, such dancers always put on their costumes out of sight of the spectators. They usually approach dancing in single file (see pl. 2, figs. 3 and 4). Each *tūya* upon reaching the door squats in front of it and shakes his two split stick rattles. The *teclitū* goes in immediately on his arrival, and when all is ready calls in the *tūya*.

AFTERNOON DANCES

The midday feast began a little after noon, as usual preceded by a speech from the director. The next dance was made by four men about three o'clock in the afternoon.

This being the last time that the particular dancers participating were to appear, a purification ceremony immediately followed the dance of each.

As each dancer took up his position in the tunnel of the dance house after completing his set of the dance, the fire tender went to him and, seizing his wrists, lifted his hands and his rattles high above his head. He then looked the dancer carefully over from head to foot and finally, letting go his hands, allowed the dancer's arms and rattles to fall to his sides, after which the dancer replaced his rattles in their former crossed position. The fire tender then, commencing at the dancer's feet, blew several times with much force on various parts of the dancer's body, waving his hand upward with each blast, and ending with a long blast directed so as to spread his breath over the whole body of the dancer. He then passed around to his back and again blew in the same manner. Before performing this ceremony, the fire tender chewed *mīteil*, a parasitic plant found on oaks, probably mistletoe as nearly as can be judged from its description. His breath being laden with the sweet-scented *mīteil*, served to expel from the dancer's body any spirit or evil effect of a spirit, *teoyī*, which if unremoved would cause illness. Having blown upon a dancer in this manner, the fire tender stepped back to a position directly in front of the fire, that is, between the fire and the front door, and there raised his right hand high above his head and gave a long cry of "hē," dropping his hand and lowering his voice slowly toward the last. This completed the purification ceremony and the dancer was at liberty to depart.

Immediately after this dance and the purification of each of the

dancers, the director again delivered an oration, the latter part of which was cut short by the arrival of another set of dancers about four o'clock. Their dance was the same as the preceding, and was followed by the same purification ceremony. After they had departed, the director proceeded with his oration for perhaps half an hour longer.

ORATIONS

Several of the formal speeches delivered by the director on this afternoon as well as at other times during the Hesi were subsequently recorded as follows:

Bolc Ho, "Ghost Yes" Oration²⁸

hō yes,	hō yes,	ūrabōte believe				
hō yes,	ūrabōte believe,	hō yes,	ūrabōte believe,	hō yes,	ūrabōte believe	
ūyōrihem what taught		ūyōrihem what taught				
pīūLa here	pele we	ōū yes	pīribūm tell,	pīū'La here	pele we	ōū yes
	pīribūm tell					
wīlak world	wīlak world	Lapa all-over	tōwe speech	doibūm giving		
teama white	win people	mūtū to hear	kabee waiting,	teama white	win people	
	mūtū to hear	kabee waiting				
tōpī all	ma	paLōta save	tōpī all	hōle ²⁹ ghosts	ma	
tōpī all	pīle they	winībūm seeing,	tōpī all	pīle they	winībūm seeing	
pīlē they	manan just like	pīle they	tonobūm dance,	pīlē they	manan just like	
	pīle they	tonobūm dance				
ōū yes	La	pīlē they	imanatībūm will be the same,	ōū yes	La	pīlē they
	imanatībūm will be the same					
pe	him (they will not assist)	bapa	oubūm			

²⁸ Record 14-1495.

²⁹ So literally, but translated as "dreamer," "doctor," or "dance director."

pe	him (they will not do it)	ba	ilē	bûm		
pele we	wînîhem sees					
eelē believe	nanta not		harabûm will go,	eelē believe	nanta not	harabûm will go
ûs this	pelet to us,	ûs this	pelet to us			
pele our	tan father,	pele our	tan father			
piûla sometimes	pele we	ûlela them	ka (what is the matter)	pēibûm		
piûla sometimes	pele we	ûlela them	ka (what is the matter)	pēibûm		
yapai dance	mo	dōitibûm will give,	yapai dance	mo	dōitibûm will give	
teama white	wîn people	ma	dōitibûm will give	laiûkarû good	wîlak world	
	laiûkahem goodness					
oû yes	hem (people)	oûbûm yes,	oû yes	hem (people)	oûbûm yes	
eelē not	mûite believe					
nantēwēie my speech,		nantēwēie my speech				
ûs this	pelet to us	a	ûs this	pelet to us	a	
piûrû all	wîlak world	wîlak world	La on	dîdî villages	La in,	piûrû all
	wîlak world	wîlak world	La on	dîdî villages	La in	
tēwē speech	toyû stopped	werehem coming,	tēwē speech	toyû stopped	werehem coming	
piû what	Laba doing	bōle ²⁹ ghost	teama white	wîn people	ma	yapai dance
	ma	dōitibûm ³⁰ will give;	pēi show	manan just like	ton dance	mato your,
	pēi show	manan just like	yapai dance	matō your,	pī that	ma
	ûlet them	dōiûra give	bebempû there			
piû what	Laba doing?					

²⁹ So literally, but translated as "dreamer," "doctor," or "dance director."

³⁰ The speaker was asking a colleague or rival, Bulkas by name, from the Clear Lake region, what he intended to do, whether he intended to give another dance as the white people do.

teanaman Chinaman	titeabūm will know,	teanaman Chinaman	titeabūm will know		
wilakno world's	Lûturu trouble	werit coming			
pila They	titeatibūm will know,	teanaman Chinaman	titeatibūm will know,	teama white	
	win people	Leksūm later	titeatibūm will know,	teama white	win people
	titeatibūm will know				
pal now	pile we	tēwē speech,	titea-mata let them know	dōibūm will give	tono dance
	dōibūm will give	yalūmas leave	parūrū crowded	win people	win people
	pīūrū for that	teū I	Lahis look		antara many
wilak world	teū I	Lahis look,	wilak world	teū I	Lahis look,
	teū I	Lahis look.			
teū I	mīt you	pīūla sometimes	teū I	mīt you	mūtmaton will tell,
	eōmara let know	mīt you	heLa somewhere	tepitī go out	ōlel above,
	henpa find	La in	ōlel above	tepitī go,	pila there
	henpa find	La in	henpa find	La in	waiyel north
	La in	nōwīna west	henpa find,	tī	pīūnpī thus
	Lahūbo look,	pīūn thus	teū I	Lahie look,	ūn
	pīnai do this	wilak world	boteitī ³¹ break down		pīūLai there
nai I	henpa find	La in	ūn	nai I	henpa find
					La in
wilak world	boteitī break down				ūn
ūnica so said					

Free Paraphrase

You must believe what he has taught you. Here we should be glad. Give this speech to all the people, to the white people also for they are awaiting it. Every one is to be saved. All the dreamers see that. Just like them (the ghosts) we dance.

³¹ "When I do this the world will end."

Some people will not assist, some will not do as they are instructed. Though our father (*i. e.*, ruler of the ghost world) told us this, we see that some people do not believe it. Sometimes we ask what the reason is.

We must give a dance. We will give it for the white people also. It is for the betterment of the world and for the improvement of the people.

Yes, some people do not believe my speech, but this is for us, for all the world and for all the villages.

What are you going to do? Do you intend to give another dance as the white people do?

The Chinese know that the world is coming to an end, and the white people will realize this after a while.

Now let us speak that all may know. Let us dance. The world is crowded with people. That is the reason for my search. I call you all to let you know that I am going away in search of the future world. I do not know just where it is, but know I shall find it somewhere above, either in the north or in the west. That is the way I shall look about and, when I do, the world will come to an end.

That is what I (the seer) said.

*Another Bolc Ho Oration*³²

o'u

yes

so'les
listen

ho'ti
stay,

so'les
listen

ho'ti
stay,

so'les
listen

bo'ti
stay

pele't
us

ti'ptarohe'
telling

pele't
us

mo'mhurobe'
telling us

ete'ma
one

te'we
word

ete'ma
one

te'we
word

tiple
teach

mile't
you,

tiple
teach

mile't
you

na't
me

yo'rihem
who'tells

na't
me

tipi'hem
who teaches

pi'ma
that

mile't
you

mo'mhule
(I) shall tell

pa'l
now

pele't
we

pisi'n
with that

li'ptitobe'
shall die

pi'sin
with that

pale'i
we

hara'tobe
shall go

pisi'n
with that

pele'i
we

tepi'tobe
shall come out

pi'nbem
thus

eu'bem
being so

piu'ta
when

u'u
thus

pele'
we

³² Record 14 1510. A. L. Kroeber transcriber, Tom Odoek translator.

wila'k world	upu thus	pele' we	tono'le dance						
wi'lak world		noitono'la when dance		upu thus		pele' we			
piun thus		tee'ltaro continue,		piun thus		tee'ltaro continue			
piun thus		tee'ltaro continue,		piun thus		tee'ltaro continue			
lipti'tibom all will die,		lipti'tibom all will die							
u-ni'sa that told,		u'nisa that told		na't me					
na't me		upu'nisa thus told				mo'mela (tell)			
na't me		upu'nisa thus told,		nati me		pi'la there		piu'nisa thus told	
pi'uro thus		e'unputa'n jumping,				e'unputa'n jumping			
e'unputa'n jumping,		e'unputa'n jumping							
tee'ltaro continue		pi this		pele we		pi'ura thus			
ha'wir quick		peliptu'nica die said							
pi that		pi'mana that		teupa'ro (we) finished,		pi'mana that		teupa'ro (we) finished	
e that	wilak world	in ,		e that	wilak world	in ,	e that	wilak world	in
pi'si'nupu that is what		pele we			li'ptibom die		li'ptibom die		
eun that		putu'ruteu I jumped		teu I					
nati me		pi'la there							
emus four times		teanda'kumanisa make step told							
emus four times		na me		teandakumanisa make step told,		piura thus		nat me	
teanda'ku step		u'nisa told,		teanda'ku step		u'nisa told			
pius that		teu I		teanda'k step		wi'nisa saw			
pal		nai		pi'uLa when		pi'uLa when		teu I	hu'mnisa died
pi'uLa when		teu I		ui		upuLa (he) said		hu'mnisa died	pi'uLa when
piu'ra thus		teibo' was,		piu'ra thus		teibo' was		piu'ra thus	teibo' was

tepu'nisa
(I) came out

wei ³³ Thanks,	piu' that	ma	nat me	wi'nit get up
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winit get up	pi'uro thus	hetca's often	yuku'rohe' awaken
-----------------	----------------	------------------	----------------------

uii'sa told	nat me
----------------	-----------

ba'kuma'nisa made (me) count (it).	ba'kuma'nisa made (me) count (it)
---------------------------------------	--------------------------------------

pi'ut that	nai I
---------------	----------

emus four times	nai I	lu'mitaro should die	be'nisa told	uro that	be'nisa told
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o'u yes	piu'-nisa thus it was,	piu'-nisa thus it was,	piu'-nisa thus it was
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A Third Bole Ho Oration³⁴

ō, ō! cō'lee bō'ti³⁵ (3). nai nai wini³⁶ (2), nat yori³⁷ (2), pīma mīlet monhūle,³⁸ pīma mīlet tiple, pīūta mīlenpū. Wilak³⁹ wilakla (2), ōūbūm⁴⁰ (2), pīla pelet laukou⁴¹ tiabūm⁴² ō pīma teū ōū'nisa, laiūk tepī, soro⁴³ laiūk mo'mī, soro ōū'nisa, piū manat, ēwisin mīle (2), piū weresūn,⁴⁴ ēwisin mīt pi'ūmatō ēū tī hitamatō⁴⁵ (2), teī teū mara poūma mīle nisa, pīma nat momī sa teī'teī⁴⁶ (2), pi'uma teū (2), pīma dūkamaru,⁴⁷ pīma lūtūmara,⁴⁸ bōūica ūrteū mū te'ū, mū teū bonica pi'ū lauai, pi la'ūk ie, pi la'ūk ie ūn, piēn pi mīlē weretī, piēn pi mīle piūtī piū'la (3), pōma mīlē'nica,⁴⁹ ūi teiteūmūrū⁵⁰ (2), (pi) pi la'ūk ie ūn (2), piūta teur lo'tūmara⁵¹ bōūica, teū teūma bōūica (2), pīmana teū ūūica ēū mīle (2), were ta bē ie ēū ūūica, aihiūkōsai⁵² ūūica, piūta teū teū

³³ An exclamation of pleasure.

³⁴ Phonograph record 14-1513. Numbers in parentheses in the text indicate the number of times that the immediately preceding phrase—that is the group of words following the last mark of punctuation—is repeated.

³⁵ Listen!

³⁶ What I see.

³⁷ Teach me.

³⁸ I shall tell you that.

³⁹ World

⁴⁰ Believe.

⁴¹ Good

⁴² Call.

⁴³ "Tell good thought."

⁴⁴ Come, arrive.

⁴⁵ "When you do this, let him ask him."

⁴⁶ He that told me choked.

⁴⁷ "That wrong."

⁴⁸ "Would not let me mark (or write)."

⁴⁹ All choked.

⁵⁰ Bad.

⁵¹ "How is that?"

mülenica⁵² (2). nai nai piū, piū nai ōū'nica (2), piūmas ur ōūnica. pi pi tewihem⁵³ piū mateōūn laiukara hes ūnisa mile pi ein wereka wetūra⁵⁴ bee ūnica, piein mile were laiukara bee piūla bōnica tōū muir. piūla piū mas ūr nat win tara (2). el nai piūra dukamara⁵⁵ bo ou Latūmas mā pūmami poros ūnica pi piūra yopmanica.⁵⁶ piūla kat. Lamana⁵⁷ ūtiipi'hem⁵⁸ (2), kat. Lamana⁵⁷ ūpur-benica.

A Fourth Bole Ho Oration⁵⁹

ō, ō! mile pi (2), mile pi tepibo⁶⁰ (2), mile pi hele har milē be (2). wilak wilak Labon,⁶¹ didi⁶² Labon, sūn pi meli tepibo, sūn pi meli werebo, sūn pi mile henebon, piūla mile mile, elelebosa⁶³ (2), mile pima mile, tepī yapai⁶⁴ win⁶⁵ lūmū⁶⁶ La pin (2), hela hara⁶⁷ pe, lun tar pele bobatin termūr,⁶⁸ techmū⁶⁹ ūr ūbasa mile, pi mile yōma⁷⁰ les mile pelehuan males topi mile henee ē wilak La ōū dihi⁶² La teūn pi mile henē bō teūn pi mile tepibō yōūmelēbe,⁷¹ hēna pūina⁷² harmelēbe, worna⁷² harmelēbe (2), teūn (ie) melē hene⁷³ eok (ie) (2). pi pi eūra hene bo, eūle pile ie ūn, eūle pi pile ūn pabe⁷⁴ tewe⁷⁵ ōūra ūn. eūle piū La tewe, mūfūhem⁷⁶ e e pabe tewe. nai tewe teaihum⁷⁷ behem⁷⁸ (2). pi eū henes, ūrū tepū maneca, teū mōmūn La melet eū matōūn. sūn laiūkara tepū matōūn (2). teū piū boūn pūla mile piū bosaūn ūpun mile tewe bo sa elele, bo sa mile, pi pi tewe, hene bosa. male piūhem ūn sūnpī⁷⁹ (2), henebo ūn sūnpī (2), werebo ūn sūnpī, mile tepibo ūn, wilak wilak La bo ūn, didi La bo ūn, piū La mile mile ūpūbosa malē tewe. pi ma home bosa. mile ūpūbosa nai mūtū La ūn. mile nai mūtū La (2). nai sorī⁸⁰ La tepī pabo, win lūmu La harabo, hetūka harabo, hobo pele eū kir⁸¹ La ūn, pi La mile hobo ūnisa, ūni mile teuteubosa⁷⁵ ūn, ūni mile tewibosa.⁷⁵

⁵² Then I said nothing, he said.

⁵³ Spoke.

⁵⁴ Is right.

⁵⁵ Inside me thus is bad.

⁵⁶ Took it off.

⁵⁷ Made a cracking noise.

⁵⁸ That is what he learned.

⁵⁹ Record 14-1514.

⁶⁰ Emerge, leave.

⁶¹ Everywhere.

⁶² Villages.

⁶³ Doubt, disbelieve.

⁶⁴ Dance.

⁶⁵ People.

⁶⁶ Dead.

⁶⁷ Go.

⁶⁸ "We are all dead."

⁶⁹ Travel.

⁷⁰ Lost; melēbe, never.

⁷¹ East.

⁷² South.

⁷³ Come.

⁷⁴ New (?)

⁷⁵ Word, speak, talk.

⁷⁶ Listeners, listening, hearing

⁷⁷ Sorry.

⁷⁸ Being, who are.

⁷⁹ Here.

⁸⁰ Listen.

⁸¹ Earth.

These speeches are to a certain extent traditional, but partly made up on the spur of the moment by the director. They are therefore subject to a greater or lesser variation from year to year and cannot be considered as strictly ritualistic and fixed in their terminology. The speeches here recorded must therefore be considered to evince some personal element, although the various orations of the successive ceremonies are without doubt in a fair measure the same verbatim, and certainly contain similar substance and sentiment. While they include certain esoteric elements, they consist more largely of words which are of the common speech, so that the people are able to understand their general tenor.

FINAL DANCE

The last dance of the ceremony was made about ten o'clock in the evening by four of the men from the host village. Toward the end of this dance, the *mōkī* appeared and participated in the same manner as in the initial dance on the opening night.

At the end of this dance all three of the *tūya* or big-head dancers were purified by the fire tender in the same manner as in the afternoon. This dance and the *mōkī* ceremony connected with it marked the end of the Hesi proper.

Early in the evening a grass game, *kosī*, was started outside the dance house and this continued throughout the night, not even being stopped during the above mentioned final dance.

FOURTH DAY

At about the usual eating time on the morning of the fourth day, a final feast was served at the long table near the dance house, after which the people all assembled in the dance house, each group taking its particular allotted place in the space for spectators. The host captain again brought in baskets of acorn soup and cakes of black meal and all were served in the same manner as on their arrival four days before.

FAREWELL ORATION

During this feast the director delivered a farewell oration, including a song, as follows:

*Role Ho and Song*⁸²

hanise teū nat ku tiyamtī⁸³ (3). mūtmatū⁸⁴ tēwī (2). cōmatū⁸⁴ nat iyamtī,⁸⁵
 nat ku tiyamtī. pūla tea hanicai,⁸⁶ pūla bonica, f'almū⁸⁷ pūtataras⁸⁸
 hamtaras⁸⁹ bonica. pī la ōū teū mit tiyasa⁹⁰ (2). mūtmatū⁸⁴ sorūmata⁹¹ nai
 pūn lakalasok⁹² (2). eū wilak ūn, eū tol,⁹³ pīrō,⁹⁴ matapan,⁹⁵ matapan, ōle⁹⁶ bobon,
 pantiala⁹⁷ bobon, ponolta⁹⁸ ie ūn, ponolta ie matapan, matapan, teūn eteta⁹⁹ hos
 odelbe⁹⁶ hī ponolta bebe ūn wilak teū teū lahiti¹⁰⁰ ūn lahie¹⁰⁰ teū wilak hela
 hēpato,¹⁰¹ helapa teenpati,¹⁰¹ eūn teeltara¹⁰² win¹⁰³ paros,¹⁰⁴ pūra win paros,
 na nanū dīhī,¹⁰⁵ nanū dīhī nat.

woainī woainī (9)

eū wilak¹⁰⁶ woainī (2)

woainī woainī (2)

eū mēmēm¹⁰⁷ woainī (2)

woainī woainī (2)

eū tol¹⁰⁸ woainī (2)

woainī woainī (3)

eū balī¹⁰⁹ woainī (2)

woainī woainī (1)

eū mēmēm woainī (2)

woainī woainī (2)

eī kapai¹¹⁰ woainī (2)

⁸² Records 14-1515 to 1517; numbers have the same meaning as in the two last speeches.

⁸³ "Went I me called."

⁸⁴ Hear.

⁸⁵ Called.

⁸⁶ Went.

⁸⁷ Naked.

⁸⁸ Toward the east.

⁸⁹ "Toward the sitting."

⁹⁰ "Was glad I called you."

⁹¹ Listen.

⁹² Play, dance.

⁹³ Mountain.

⁹⁴ "All."

⁹⁵ Your mother's brother (or grandfather).

⁹⁶ Above.

⁹⁷ High up.

⁹⁸ Three

⁹⁹ One.

¹⁰⁰ Seek.

¹⁰¹ Find.

¹⁰² Travel toward.

¹⁰³ People.

¹⁰⁴ Crowded.

¹⁰⁵ My villages, settlements.

¹⁰⁶ This world.

¹⁰⁷ These waters.

¹⁰⁸ These mountains.

¹⁰⁹ These foothills.

¹¹⁰ These streams.

woainī woainī (1)
 eī mēmēm woainī (2)
 woainī woainī (2)
 eī tūki¹¹¹ woainī (2)
 woainī woainī (1)
 eī mēmēm woainī (2)
 woainī woainī (2)
 eī kodoi¹¹² woainī (2)
 eī mēmēm woainī (2)
 woainī woainī (4)

eū pī bō teū tē¹¹³ (2), muhima Le'tara¹¹⁴ (2), eū pī bō teū tē (2), teūmūpi¹¹⁵
 teū eū bō eū pī bō teū nai Lakala La,¹¹⁶ e nai tol Lakala La, e nai wilak Lakala La,
 e nai tūki Lakala La, e kodoi Lakala La.

eūn pī teū tē (2). Lakala bon eūn pī teū, Lakala bon. eura polopūra¹¹⁷ (2),
 polopūra (2), e teōlie¹¹⁸ bo teōlie bo, eūra pī teū were bo. tūn¹¹⁹ ūt poltūra¹¹⁷
 eūnisa, tūn ūt poltūra. eūrū be ūt pīla pīlaō ūt kalaptonīsa.¹²⁰ pīlaō hatara¹²¹
 hatara hatara hatara. mobtara¹²² nat boni¹²³ teū teū, pīnisa.¹²⁴ eū pī bō teū
 ūnisa¹²⁵ (2), nai Lakala La.¹¹⁶ tol pī teū Lakala bō (2), eū mem Lakala bo, eu
 mem in pī teū Lakala bo, ūnisa.

Free Paraphrase

My father called me and spoke to me. He called me to hear his counsel.
 I went above and found him naked and seated facing the east. He was glad
 to see me, and said: "I called you that you might hear what I have to say.
 This world and these mountains are your maternal uncles. There are three
 worlds above. There are three there, three of your uncles. There are already
 three worlds above, but I shall somewhere find a place where people may be
 sent. The world is crowded enough."

The song follows. "My father's" speech to the dreamer then continues:

"I do thus (*i. e.*, sing this) when I look for another place (*i. e.*, world).
 I never talk bad. I do this when I play, when I play on these mountains, when
 I play on this world, when I play on these trees, when I play on these rocks.
 I do this, my son. I swell up thus (illustrating) and swell and swell and swell.
 I shall show this way to you. This is the way I come." His body was wholly
 swelled. He was like that for a while there. Then he became normal in the

¹¹¹ These woods, trees.

¹¹² These rocks.

¹¹³ Son.

¹¹⁴ "Song stop."

¹¹⁵ Not speak, say nothing.

¹¹⁶ Play up on, when play.

¹¹⁷ Swelled.

¹¹⁸ Stay.

¹¹⁹ Body.

¹²⁰ Said, it is well.

¹²¹ Gone.

¹²² Good.

¹²³ Stay.

¹²⁴ Said this.

¹²⁵ Said that.

same place. The swelling was gone. He told me, "Remain to talk. I do thus," he said, "When I play on those mountains, when I play in the water, I play thus," he said.

DEPARTURE

The guests then prepared to depart, and by half past ten or eleven o'clock, the village was left with only its usual population. The director and the captain, together with one or two assistants, rolled up and laid away the dancing paraphernalia and in general took care of whatever it was desired to save for a future ceremony. The village then resumed its usual quietude and the people recuperated from the long vigil of the ceremony, for during these four days and nights most of them had scarcely slept.

ADDITIONAL SPEECHES AND SONGS

The following additional speeches and songs belong in the ceremony but have no fixed place in it. Various other songs and speeches were also delivered but time did not permit their recording.

*Bole Ho Speech*¹²⁶

pi'roboiti, remain thus
 gu'teima mile't ti'ple, a little (I) you inform
 ete'ma t'e'we pa'mpama t'e'we, one word, two words
 milet ti'ple, inform you
 o'uraboiti (2), (and ye) say yes
 pi'ro wi'lakupo (2), thus in the world
 mo'ktaro were'hem (2), make will come
 pele'tuka, to us
 to pimma pele't pale'to (2), they us will drive out
 pi'ura were'hem, so will come
 he'u wila'k (2), this world
 pi'ura were'hem, so will come
 pi sun mile didi'la didi'la, here you in the settlements, in the settlements
 nann t'e'we o'ura mi'le were' (2), my words approving you come
 pi tei'derobes, that was straight
 pi la'iokarobes, that was good
 male'ipin, what you do
 nana t'e'we o'u, my words approve
 pi'ulaupu teama'win, when on those white persons
 teama'winpa (2), on white persons
 pi'lei i ma'natibom (2), us will resemble
 mni'tibom, will sing

¹²⁶ Record 14-1509, Thomas Odoek translator, A. L. Kroeber transcriber. The lines indicate the phrasing, which is marked by considerable pauses, which are rhetorical rather than grammatical. Numbers denote repetitions of phrases.

nu'hun tono'tibom, sing will dance
 o'ura o'ula pile pin'tibom, approving, when approve we shall do so
 o'ura were'hem, approving who come
 pi'uta upu were'hem, thus will come
 pi'ula wile'tuka, thus they
 wile'tuka we'rebem, they will come
 wile'i o'mua o'mua we'rebem, they when approve, when approve, will come
 la'iokato were'hem (2), being good will come
 eu teama'winoi pele'no t'e'we, these white people our words
 pale nli ten do'is ule ten do'is, we (only) I give, (only) I give
 ule ten tipis, (only) I inform
 male'yimanan (2), like yourselves
 eu'n Laka'mato (2), thus playing (dancing)
 teu do'is pimma, I give them
 nam t'e'we, my words
 na'i teayu'nbobem (2), I who remain ashamed
 pi'mma teu ti'pis, them I inform
 pi'umato, doing thus
 to pi'mma mele't pale'mato, they you (putting out?)
 to pi'mma mele't ebu'mato, they you (getting out?)
 sun sun ten mele't pi'us, here, here I for you do so
 sun sun te'pito, here, here emerge
 mile e'ula ha'r miles, you when go (nowhere?)
 pe mile le'luna'mm eles (2), you become otherwise (at death)
 pi'ula mile sun he'nes, so when you here come
 sun mile he'nes, here you come
 sun mile te'pis, here you emerge
 sun pi he'nebo wilakwila'ksel, here will come from all over the world
 di'disel pi sun hene'bo, from the settlements here will come
 eu ke'wela, to this dance house
 eu wo'lela, to this dance floor
 sun hene'bo sun pi hene'bo, here will come, here will come
 urabes, so (I) say

*First Moki Tecmahol*¹²⁷

wuu'u wuu'u
 tate' (3), father
 wile eekte'i (3), healthy chief
 wiles eula', healthy
 pima teu eula', that I
 pida eula', (bring?)
 pima teu eula', that I
 pida t'eweda eula', that word
 wile t'eweda eula, healthy word
 (record indistinct)
 wileda' (5), healthy

¹²⁷ Record 14 1508, Oloock Kroeber transcription. The phrases are very marked and accented on the last syllables. The translation of the eternal "eula'" has not been attempted. It seems to mean "at this" or "when so." This speech is in much more rigid ritualistic form than the last, and may be more representative of the pre-ghost dance Hesi manner. It is perhaps a prayer as much as a speech. It is not a report of a recent vision of the "father," like several of the preceding.

*Second Moki Termah*¹²⁸

wuu u wuu u
 piLa ten eula
 naminda ten eula
 nan wileda eula
 nanu *Lupuru eula
 pima helairu eula (=B)
 (indistinct phrase)
 (indistinct phrase)
 pima ten were *boti *boai
 eula
 nanuda eula
 nanu takada eula
 wile takada eula
 pima *Lupuru eula (=A)
 pima helairu eula (=B)
 humli takada eula
 pida helaira eula
 A
 sai takada eula
 A
 B
 tekis takada eula
 wile takada eula
 A
 B
 nanu humtu takada eula
 A
 B
 hima eula
 nanu yulakda eula
 A
 B
 nanu *Lupuru eula
 B
 nanu Loda eula
 A
 B
 A
 pisin *hobloro eula
 (indistinct phrase)
 nanin *Lekieda eula
 nanu *Leida eula
 nanu *pelel eula
 nanu piLa eula
 hima eula
 wile *Lupuru eula
 pima *holumpuhuru eula

¹²⁸ Same source as the preceding, and the same remarks apply. 'A' and 'B' in the text stand respectively for 'pima lupuru eula' and 'pima helairu eula'. Helairu means to hold something in the hands and move it alternately to the right and left. Starred words are said to have an esoteric meaning.

nanu *pototoi takada eula
 A
 B
 A
 pida eula
 hima eula
 pida teu (4)
 *Lapurn teu
 pima teu helairu teu
 *wesai taka teu
 e wile taka teu
 e lo taka teu
 e pima *hoblolo eula (2)
 pida teu (2)
 pida teu wetaru (2)
 hene boti *boai

Glossary of principal words in order of occurrence.—*pida*, at that, there, when; *teu*, I; *nanu*, mine; *-da*, translated "and" (*see*); *nan*, *nanu*, my; *wile*, healthy; *pima*, that, they (*-ma* is a causative suffix of verbs and a plural of nouns denoting persons); *waru*, arrive; *taka*, crop of acorns or wild growths; *humli*, a species of oak; *sai*, a species of oak; *tekis*, a species of oak; *humtu*, fat, grease, probably referring to the oily acorn called *hamsu*; *hima*, indeed, surely; *yulak*, acorns of *Quercus wislizeni*; *lo*, a kind of long acorn; *pisin*, with that; *wetaru*, arrive with; *hene*, come.

*Four Speeches by the Moki:*¹²⁹

I

wuu u (4)
 pida teu eula (2)
 nanu tealalla eula
 wile tealalla eula
 pira helayuru eula
 pima *Lapurn eula
 pima *eekaru eula
 pida eula
 (indistinct phrase)
 wile t'ewe eula
 (indistinct phrase)
 nann t'ewe teu
 wile t'ewe teu
 tealal t'ewe teu
 tealal t'ewe teu
 nann bole t'ewe teu
 pida teu wiarn
 *Lapurn teu pima helairu teu
 (indistinct phrase: pida teu . . . kayire teu)
 pida *pulaki *boti *boai

¹²⁹ Record 14-1494, Odlock-Krocher transcription. Spoken by Salvador in a high-keyed voice, while walking about the dance house in his Moki cloak. Starred words are esoteric; the principal others will be found in the preceding or following glossary.

II

wuu'u (2)
 wile sekte'i (2)
 wi'leda teu
 nanu wi'leda teu
 nanu wile teu
 wi'leda teu hela'iru teu
 lila'inma wile le'loru teu
 lo'ibama wile le'loru teu
 se'ribama wile le'loru teu
 pida' teu nanu wi'leda teu
 tea'lal wile'da teu
 ho'le wile'da teu
 pi'da teu *pula'ki *boti *boa'i

III

wuu'u (3)
 wile sekte'i
 wi'leda teu
 uanu wile'da teu
 na'nu
 wile tea'lalda
 wile *Lupi'da
 wile helai'da
 (indistinct phrase)
 pi'ma teu hela'iru
 pima *Lu'puru
 pima teu (indistinct word)
 ila'inma teu
 lo'ibama
 wile le'loru
 se'ribama wile le'loru
 se'ktubama
 pi' ra teu weta'ru he'ne *boti *boa'i

IV

wuu'u (2)
 wile sekte'i (2)
 wile *be'sai
 wi'leda teu na'nu wi'leda teu
 ho'le wi'leda teu
 pima *Lupuru teu pima teu hela'iru teu
 pi'da wile'da teu
 pi'da *pulaki *boti *boa'i

Supplementary Glossary.—*tea'lal*, pretty, literally, rose blossom, probably a ghost-dance word; *helai'ru*, *helapuru*, *helai-da*, sway, swing sidewise repeatedly; *t'erc*, word, speak; *ho'le*, ghost, spirit of a dead person; *wiaru*, gather; *sektei*, *sektu*, chief; *ilain-ma*, *ilain-ma*, children; *le'loru*, are made, become; *loiba-ma*, girls, maidens; *scriba-ma*, youths.

*Farewell Speech to Visitors*¹³⁹

o'u
 pi'ra hene'ti (4)
 pe'le hene'sa
 hene'sa pe'le hene'sa
 se'ktu ma'tin
 ma'in ma'tin
 ma'ino t'e'we
 o'uura
 o'uura ut piu'ti
 o'ura ut e'ubu
 e'ubu e'ubu
 pi'La lomu'ru
 piLa we'yuru
 e'ura pele' huya'La
 e'ura pele' piu'La
 piura pele' huya'sa
 u'no wo'leLa (2)
 u'no te'wekLa
 u'La pele' huya'sa
 piLa' pele' huya'sa
 piu'La (2)
 pima lomu'ru
 ewet lomu'ru (2)
 weyu'ti
 o'u'ti
 o'u'sapi
 pele't piu'La
 tei'dupasa pele't
 pi'ra pele't witi'dupasa
 pi'ura pele' u'no ke'wela piu'sa u'no wo'leLa piu'sa
 pi'La pele' o'uparo
 ut lomu'ru
 ut we'yuru
 weyu'ru pele' piu'sa (2)
 eu'to eu'to
 en'n pele' piu'to
 u'no wo'leLa ha'mtaro
 u'no ou'La ha'mtaro
 pi'ra pele' piu'to
 weyu'to
 o'u'to
 (h) en'sa pele' en'sa
 (h)en'sa pe'le
 (Pause)
 o'u'ra o'u'ra (2)
 o'u'ti
 ut o'u'ti
 ut weyu'ti
 ewe'ti sektuma
 ewe't mainma

¹³⁹ Record 14-1499, Odock Kroeber transcription.

o'u'ti
 o'u'ti u'no t'e'we
 u'no so'ko
 u'i mile't piu'hem
 piu'ra tei'dupara mile't
 piu'ra witi'lupahem
 pi'la o'uti
 u'no t'e'we
 u'no t'e'we u'no so'ko
 pi'ma *koto'ro
 pi'ra lomu'ti
 lomu'ti ut lomu'ti
 e'ura mile't huya'ma
 e'ura mile't we'yuma
 e'ura mile't tiya'sa
 o'u'ti u'no t'e'we
 u'no o'uti
 o'u'ti o'u'ti
 o'ura pele were' (2)
 se'ktuno t'e'we
 ma'ino t'e'we
 pi'ma pele' lomu'ra
 pi'ma pele' we'yuru
 pi'ma pele' piu'sa
 o'u'sa pele' o'u'sa

Glossary: Endings.—*sa*, *-nisa*, past; *-ti*, *-tis*, future, exhortative, imperative; *-to*, future; *-ma*, causative; *-hem*, he who; *-pa*, *-paro*, for; *-bem*, *-tibom*, future; *-t*, objective; *-no*, possessive; *-la*, on, in, at, when; *-sel*, from; *-sin*, with; *-upo*, *-upu*(?), at, on (?); *-tara*, *-taro*, toward, on to. *Stems.*—*hene*, come; *pele*, pile, we; *main*, "queen," "chief's sister," woman of princely family; *on*, yes, say yes, approve; *piu*, do that; *lomu*, glad, rejoice; *weyu*, glad, rejoice; *huya*, gather, assemble; (*u*, he), *ut*, him, *uno*, his; *wole*, floor or area of dance house; *terek*, cleared space in front of dance house; *teidu*, straight, come straight; *witilu*, run; *kewe*, dance house; *ham*, sit; *mile*, ye; *soko*, teach.

*Three Toto Dance Songs*¹³¹

1. ne'pe sume huya'sane
2. he hiyo'yoho
were'tina were'tina
he hiyo'yoho
3. ho'pil hopi'l
ho'pil hopi'l
ne'pil nepi'l
ne'pil nepi'l

Nepc, *nepil* is the first person inclusive dual, "I and thou"; *huyasane* was translated "rocking," but *huya* also means to gather or assemble; *were'tina* was said to mean south.

¹³¹ Records 14-1492, 14-1496.

*Moki's Speech of Welcome in the Toto Dance*¹³²

piru boti
 piru boti piru
 laiakuru boti
 laiakuru boti laiakuru
 pima weyuru
 pima lomuru
 (h)e t'ewe lomuru
 e lomuru
 e tealal lomuru
 wile tealal lomuru
 millet ila
 o'ura boti (2)
 o'uto pele were (2)
 eura pele pinto
 o'uto
 weyuto
 we taten uto
 we apaten uto
 we labaten uto
 (h) eura pele huyala (2)
 pila pele lomuto
 peleno t'ewe (2)
 pira weyuru
 weyusa ten weyusa
 ten lomusa
 lomuru oparu
 lomuru weyuru
 pima o'ura
 pima lomuru

Except for *laba*, older brother, this speech contains no words not found in the preceding ones: *we—uto* in lines 17–19 is evidently equivalent to *we(y)u-to*. This identity of phraseological material is significant for Wintun oratory. The speaker's freedom lies chiefly in making a different random arrangement of the same words. That a Toto speech should so closely parallel the Hesi speeches, need not surprise, in view of the Toto being only a modern substitute for one of the two annual Hesi performances.

THE HAND GAME

The "hand" or "grass" game,¹³³ often played by the Wintun as an adjunct to the Hesi, runs as follows.

¹³² Phonograph record 14-1496, Odock-Kroeber transcription.

¹³³ Mr. Stewart Culin mentions this Wintun game, giving its native name as *dam*, in his *Games of the North American Indians*, Rep. Bur. Am. Ethn., xxiv, 283, 1907.

Two pairs of cylindrical bones from two to two and a half inches in length and half an inch in diameter are used. One of each pair is wound about its middle with string or sinew in order to mark it. With these bones is required a considerable quantity of finely chopped grass or, if this is not available, straw.

The tally of the game is kept by means of twelve sticks about eight or ten inches in length. These at the start are held by what may be called a tally keeper or overseer of the game, called *kaīmērū*. His name is the same as that of the fire tender of the dance house, and ordinarily the same individual serves both offices. His fee for this service is a portion, usually about ten per cent, of the stakes.

A large mat or blanket is ordinarily spread on each side of a middle ground which is perhaps five to eight feet across, and on each of these mats two players kneel, sitting on their heels. Each is provided with a quantity of the chopped grass, and each usually has with him one or more charm stones which he inserts under his mat for good luck. The tally keeper kneels or sits at a point midway between the two sets of players and at a little distance back, where he can see both sides as the game progresses.

He at first holds the twelve counters and the four bones with which the game is to be played. In case it is a game between residents on one side and visitors on the other, the visitors are always given the bones first. If it is played between two sets of visitors, or two sets of residents, priority is arranged by lot. The players of the holding side take each a marked and an unmarked bone and roll them between their palms for a minute or two, singing meanwhile their gambling song and usually spitting upon the bones as they roll them. They then take up in each hand a quantity of the chopped grass and hide each of the bones in a small bundle of it. The hands are now passed back of the body and the two bundles of grass rolled back and forth rapidly from one hand to another. Often the bundles are brought to the front again and shuffled there as rapidly as possible. The purpose is to confuse the opposing side, whose object it is to guess in which hand the marked bone of each player remains.

All this time the shufflers sing their individual gambling songs (*kosī mūlī*); although frequently only one of a pair of players actually sings an air, the other accompanying him with a more monotonous burden. Some players start with an air when they first take the bones, but upon burying these in the rolls of grass their song is reduced to a sort of low chant or hum, which is kept up until the guess

of the opposite side is finally made. If the guess is correct and the player loses, he sings again in a low voice; or in case the guess is incorrect and he wins, he breaks out wildly into the same air. During all this rolling and preparing for the guess, the body is kept swinging and swaying.

These are the words of a gambling song, which calls on the stakes to come to the player:

hima mi weni-hiya	hima you come
kay-uro mi weni-hiyo	walking you come
Lube mi weni-hiya	net you come ¹³⁴

Finally, when the player holding the bones is fully prepared, he places his right hand in front of him, and his left at the small of his back. The guesser meanwhile, for only one person of the opposing side guesses at a time, has struck his chest with his left fist several times, and swung his right arm at full length in front of him, pointing his right forefinger four times at the opposing side. Finally, when the rollers of the bones signify their readiness for the guess by placing their hands in the proper position, he points or snaps his fingers toward them and cries out his guess. If, however, he is not satisfied with the rolling and unprepared to guess, he gives a different call and the rollers must then shuffle the bones again before he is obliged to guess.

The positions may be as follows, x indicating the marked and o the unmarked bones.

<i>Right</i>	<i>Left</i>	<i>Right</i>	<i>Left</i>
x	o	x	o
o	x	o	x
o	x	x	o
x	o	o	x

Another position is now and then used: both bones in one hand. Since only the position of the marked bone counts, this device does not alter the effect of the guess.

As the guesser finally points and calls his guess, the two players open their hands. If he has guessed both of them correctly, the bones pass to his side, and one of the former shufflers now becomes the guesser. If he has guessed incorrectly on both bones, the tally keeper pays two counters to the shufflers and they retain the bones and resume hiding them. If the guesser is correct on only one of the bones, the

¹³⁴ Record 14-1500.

shuffler whom he has guessed stops playing, but no counters are passed, since the correct guess offsets the incorrect one. The surviving shuffler rolls the bones again and a new guess is made on his hands. If this second guess is incorrect, the tally keeper pays out one counter. The guessing is continued for the one outstanding bone, at the cost of a counter for each miss, until it is found. Both players of the original shuffling side having now been eliminated, the bones pass to the guessers, and the game proceeds as before. The tally keeper pays out for all incorrect guesses until all twelve of his counters are gone, after which payment for misses is made directly by the guessers to the hiding side.

The bones and counters may go back and forth from one side to the other for a considerable time. The game is won when one side possesses all twelve counters. The winners then divide the stakes, after the tally keeper's deduction. Anyone except the tally keeper may bet. A large number frequently join, each piece of property or coin laid down being matched by the opposing side. Custom rather expects any proffered bet to be met, although part is sometimes withdrawn if the opponents have difficulty in accumulating a like stake.

The guessing in this game is usually done by one or the other of the players themselves, but sometimes a side-better, reported to be skilful or lucky, acts as guesser.

EXPLANATION OF PLATES

PLATE 22

Fig. 1. The Wintun village of Let in Cortina Valley, Colusa County, California.

Fig. 2. Director's assistant placing the rain and food fetishes (recent type) of the Hesi ceremony on the roof of the dance house.

Fig. 3. Moki performing dance about the high pole in front of the dance house. This pole with its banner seems to be a recent innovation under *bole* or ghost dance influence.

Fig. 4. Moki performing ceremonial dance about the feasting table and poles used in the Hesi.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

PLATE 23

Fig. 1. Fire dancers returning to the dance house after the plunge in the creek which follows the fire or sweat dance.

Fig. 2. Visitors from the Sacramento river region entering the dance house on their arrival.

Fig. 3. Tuya ("big head") dancers approaching the dance house.

Fig. 4. Tuya dancers, with their *teelitū*, standing in front of the dance house.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

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THE GENETIC RELATIONSHIP OF THE
NORTH AMERICAN INDIAN
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BY
PAUL RADIN

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THE GENETIC RELATIONSHIP OF THE NORTH
AMERICAN INDIAN LANGUAGES¹

BY

PAUL RADIN

All studies of the Indian languages of North America go back properly to J. W. Powell's paper in the *Seventh Annual Report of the Bureau of American Ethnology*. Unfortunately his preliminary study was interpreted by most Americanists as demonstrating that genetic relationships between the stocks he postulated had been disproved, or at least were to be presumed as disproved, whereas all he in reality claimed was that the relationship had not been determined. This attitude toward Powell's classification was strengthened by the results of Boas's investigations. The task Professor Boas and his school set themselves was the analytical presentation of the various Indian languages according to the specific genius of each, and interest thus shifted entirely from what were deemed futile genetic problems to monographic studies of special languages.

As might have been anticipated, however, hints and suggestions as to possible relationships were made many years ago. The grouping of Nahuatl with Shoshonean, first discussed by Buschmann, was pressed by Brinton, and the latter likewise first postulated the relationship of Yuman and Tequistlatecan (Chontal). Boas himself pointed out resemblances between Athapaskan, Haida, and Tlingit, for which genetic unity was subsequently proved by Sapir. He also showed definite structural similarities between Kwakiutl, Salish, and Chema-kum. The first serious reduction of the number of stocks was, however, that proposed by Kroeber and Dixon, who, subsequently

¹ This paper is avowedly preliminary and no attempt has been made to consistently follow all the morphological forms and the vocabularies through all the languages. Owing to space limitations much has had to be omitted; in particular the proof for the existence of those morphological elements isolated by myself, which had previously not been recognized as such.

aided by Sapir and Harrington, reduced all the languages of California to seven stocks. One of the most startling and brilliant achievements in this connection was Sapir's demonstration of the relationship of Wiyot and Yurok to Algonkin. Harrington subsequently connected Tanoan, Kiowan, and Shoshonean. Then followed Swanton's suggestion as to a possible relationship between Siouan and Muskogean—Natchez having been previously included by him in the latter—and his demonstration of the relation of Atakapa, Tonkawa, and Coahuiltecan, a group that Sapir subsequently, in an unpublished paper, has shown fairly definitely to be connected with Hokan. The latter author has likewise arrived at the conclusion that Takekma, Coos, Chinook, and Tsimshian belong to the Penutian group. Other vaguely suggested relationships were those of Kutenai with Algonkin, Iroquois with Caddoan, and Yuki with Penutian (Kroeber).

If all these groupings were to be accepted the linguistic stocks in North America north of the Rio Grande would be practically reduced to Athapaskan, Hokan, Penutian, Kwakiutl-Salish, Kutenai-Algonkin, Shoshonean-Tanoan, Iroquoian-Caddoan, Siouan-Muskogean, Lutanian, Sahaptin, Zunian, and Keresan. The postulation of the genetic relationship of all the languages of North America contained in the following paper will then, considering these previous tentative conclusions, hardly seem so revolutionary.

The present paper is the result of the writer's detailed study of Wappo, a Yukian language, which showed rather clear and definite relationships to Hokan, on the one hand, and to Siouan, on the other, and subsequently disclosed remarkable similarities to Athapaskan and Penutian. A comparison of Winnebago (Siouan) with the unpublished grammar of Southern Paiute (Shoshonean),² afterwards undertaken, showed marked resemblances between Siouan and Shoshonean.

The morphological elements and vocabularies that follow speak for themselves. The resemblances seem clearly of a fundamental nature, including, for instance, the imperative, passive, continuative, causative, dubitative, nominal sign, formation of plural, formation of tenses, the reflexive, interrogative, the demonstratives, the personal pronouns, and many of the common nouns and verbs. There are but two possible explanations: borrowing or genetic relationship. Borrowing is practically excluded, particularly in the case of the morphological elements, because of the universal manner of their occurrence

² Kindly placed at the writer's disposal by Dr. Sapir.

all over North America, and it is equally impossible to attribute to chance so many startling resemblances not only of meaning but even of position in the word unit.

One feature in particular I wish to point out, namely, the marked prominence of verb "aspects." These had, of course, been recognized before. To me they seem to be among the most fundamental characteristics of the languages of North America. There appear to be at least six: the momentaneous, durative-usitative, transitive, intransitive (often medio-passive), causative, and continuative, the last five being frequently associated with the suffixes *s* or *e*; *t*; *k*; *n* or *t*; and *l*. Frequently these elements are definitely suffixed to certain verbs. They have been so far determined for Athapaskan, Hokan, Yukian, Penutian, Siouan, and Kwakiutl.

The general conclusion advanced in this paper is corroborated likewise when the linguistic stocks are grouped according to specific traits. Let us for instance select the following eight fundamental traits: (1) objective case ending; (2) subjective and objective personal pronouns; (3) different stems for singular and plural of verbs; (4) instrumental prefixes; (5) passive voice; (6) irregular formation of plural; (7) reduplication; (8) suffixes or infixes expressing verb aspect.

1. Penutian, Shoshonean, Yukian, Siouan, Algonkin, Kwakiutl, Sahaptin, Lutuamian, Muskogean.

2. Yukian, Hokan, Athapaskan, Siouan, Muskogean, Iroquoian.

3. Athapaskan, Hokan, Yukian, Shoshonean, Siouan (Biloxi), Muskogean, Tsimshian, Chinookan, Salish.

4. Athapaskan, Shoshonean, Hokan, some Penutian languages, Hokan, Siouan, Muskogean, Yukian, Iroquoian.

5. All.

6. Practically all.

7. All.

8. All.

A cursory glance at the above groupings shows that at best the languages fall into two groups, one having an apparent differentiation of the personal pronouns into a subjective and objective series. It might be well to point out, however, that all those languages which seem to have but one personal pronominal series have a series of suffixed pronominal enclitics, which often disclose forms for the first and second singular quite distinct from the independent personal pronouns, and these latter have frequently the function of subjective personal pronouns.

Any attempt at defining very clearly the more intimate groupings

of these languages is bound to be premature; but I would like to suggest three sub-groups.

I. Salish, Kwakiutl, Kutenai, Algonkin.

II. Penutian (Sapir's enlarged group), Lutuamian,³ Sahaptin, Shoshonean, Tanoan, Yukian, Mixe,⁴ Zapotecan, Caddoan, Iroquoian.

III. Athapaskan, Hokan, Maya,⁵ Sionan, Muskogean.

Athapaskan will probably turn out to be equally distant from Hokan, on the one hand, and Tsimshian and Salish, on the other; Yukian equally distant from Athapaskan, Hokan, and Sionan, but closest to Penutian; Shoshonean closest to Tanoan and Sionan, but equally distant from both Penutian and Yukian; and Iroquoian closest to Algonkin, but equally distant from Caddoan and Muskogean.

Finally it may be argued that general ethnological considerations corroborate the conclusion of a genetic relationship of the languages in question. Most recent American archaeologists seem to be agreed that 15,000 years is an adequate maximum for the settlement of North America by the Indians. That implies very definitely that the assumed differentiation into fifty-eight distinct stocks must have taken place in northeastern Asia, the assumed home of our aborigines. However, there is no evidence either in the present or past linguistic picture of northeastern Asia that would justify us in assuming a large number of distinct languages, and we are consequently forced to the conclusion that the differentiation in North America is secondary and took place after the settlement of the continent.^{6 7}

³ This and Sahaptin belong clearly to Sapir's enlarged Penutian group.

⁴ This and Zapotecan belong fairly definitely to Uto Aztecan.

⁵ Belongs fairly definitely with Hokan.

⁶ One word about the morphological elements presented. Except where indicated no morphological elements are given that have not been recognized as such by the authorities from whom they are quoted. (R) indicates manuscript data in my possession, and (S) indicates Sapir. In general, where a particular language belonging to a large group is given the form selected has been one that seemed typical.

⁷ The following abbreviations are used. The forms are taken from the standard authorities.

Al., Algonkin; Ojib., Ojibwa; Wiy., Wiyot; Yur., Yurok.

Ath., Athapaskan; Hn., Hupa; Ka., Kato; Be., Beaver; Mon., Montagnais.

Cad., Caddoan.

Hai., Haida.

H., Hokan; Chim., Chimariko; Ka., Karok; Po., Pomo; Sa., Salinan; Was., Washo; Ya., Yana.

Iro., Iroquoian.

Kut., Kutenai.

Knaw., Kwakiutl.

Lut., Lutuamian; Kla., Klamath.

M., Muskogean; Cho., Choctaw.

P., Penutian; Cost., Costanoan; Mai., Maidu; Miw., Miwok; Mnt., Mutsun;

3. to come; to come in; g'ao, Tsim; g'ax, Kwak; klee-k, Sak; go, Kut; ak, Wiy;
4. to cry; g'ak, St. Wm.; yaga, Pat; k'a-m, Y. Wap; i-xu-ka, P. Cost; xe (to sing) : xa-x, Tsim; kwe, Kwak; k'oa-kt, Sak
5. to do; w, St. Wm.; uni, Pat; m, P. Cost; uni, Zap. (R).
6. to be dead; lat-ok, Y. Wap; loho, Tak; ha, H. Po; kel, kwak; ih, M. Choe;
7. To drink; g'ok, H. Po; aks (water), Tsim; naq(?) , Kwak; k'oa, Sak; qa-mst, Chin; nuk, Mixe; t, u-(?) , Zap. (R) : uk, Tak; -ku (water), Kut; oka (water), M. Choe; na-x-ga, St. Wm.; hik, S. Hop; uk, Y. Wap;
8. to eat; ana, H. Sak; ha-m, Kwak; apa, M. Choe; pa, Y. Wap; mak, Mayan; mel, Mixe; am, P. Yok; ma, Wiy; amw, Al Fox;
9. to give; ana, M. Choe; me, Y. Wap; na, P. Cost; na-g, S. ha-mat, Kut; mak, H. Sak; ni, Al Fox; w, Iro.
10. To give; tsew, Wiy; dha-x, H. Po; toxi, H. Sak; to-an, Y. Yu; doyu, P.; de, dja-t, Thing; etel (give), M. Choe; sa-tet (?), Sak; tu-gam, St. Pak; gye-nam, Tsim; qutsh-it, Sak; ku, St. Wm., Pak.
11. to go; ye, re, le, St.; le, Y. Wap; a, H. Chin; ne, H. Po; a, Wiy; ya, Al Fox; yao, re, Tsim; t, Chin; la, Kwak; t, Iro; na-g, Sak; in, M. Choe; ha, tsu, Zap. (R) : yoi, Mixe; at, Thing; ut, Cad; ya-m, Tak; in, M. Choe; tan, P. Yok.
12. to kill; te, St. Wm.; tik, Ath. Ka; ut, Zap. (R) : ta, W. Wap; dza-k, Tsim; du, cik-em, tik-em, Sak; hik, P. Cost; ca-k, H. Po; tia, Hat;
13. to laugh; ika, H. Chin; ke, ku-wa, H. Po; ken, hat, P.; ka, Hat; hik-ai-t'e, St. Wm.; q'a-q'a-m-ga, q'a-q'a-yos, Sak; yuk-pa (?), M. Choe.
14. to run; aga, H. Po; g'o-l, Tsim; ngo, Chin; ga-ka, Lat. Kia; kuw, Y. Wap; ge-d, Xadene (S) : ho-g, Tak; ku-wa, St. Pak.
15. to see; ta, St. Pak; ts'e, H. Sak; do-gu, Kwak; ats-gam, Sak; eha-m, Mayan; mo, Y. Wap; in, Ath. Ka; ni, Tsim; ahni, M. Choe; inu, P. Cost;
16. to sing; tat, Y. Wap; udi-k, P. Yok; -le, Ath. Ka; eht-am, Sak; oia, M. xel (look for), Wiy; ikko-us, Iro.
17. to sit; dat, Ath. Ha; da, Tsim; te-m, Wiy; tet-t, tea-tet, H. Po; cu, Y. Yu; oten, te-wa, x, P.; ya-teo, ya-dji, S.; tsam, Sak; a-sha, M. Choe; ni k > *te-a-k, St. Wm.
- K'a-m, Hat; gam, Kwak; gati, S.
- 39 Reduplicated stems.

32. Sleep: po, H. Chin.; bú-l, Ath. Be.; ní-ba, Al. Ojib.; aput, Pat.; me-qet (?).
Kwak; pe-tet, Sa.
K'ra, Hat.; qstoa(?), Tsim.; gy'a-tha, Kwak.; g'om, Kut.; ktana(?),
Kut.; kana, xin, T. Win.
sim, H. Po.; in, Y. Yu.; 'teap, St.; tsi tonna, tla tsit, etat, itq, Sa.
33. Snak; wa-kap, St. Win.; co-atl, Nahu.; kan, Maya; gñe-big, Al. Ojib.; olkat,
Sa.; wi-shink (?), Lut. Kia.
34. Snow: pa, H. Ya.; pú-l, Y. Wap.; má-d-ém, Tsim.; má-k'a, Sa.; me, Al. Fox;
wa, St. Dak.
35. Stone: se, T.; tse?, Ath. Be.; to, Uto-Aztecan; assi-n, Al. Ojib.; há-p (?),
Tsim.; t'e-sem, Kwak.; tla-tsa, nít-t, Sa.; ta-lí, M. Thoe.; íe-l, Y. Wap.
36. Kan, H. Chin.; tñq, Tling.; k'e-tha, Sa.; kta-tí, Lut. Kia.; ku, Tanoan;
kub, Zap.
36. Sun; sa-s, T.; asi (today), H. Chin.; eá, sa, Ath. Be.; se-n, Hat.; sa, Tsim.;
g'i-sis, Al. Ojib.; hashí, M. Choe.
37. Sa.
38. Tongue; eñu, Ath. Mon.; tsu-tí, Ath. Be.; te-zí, St. Dak.; títot, Tling.; t'eñp,
Nooka; tít-tsa, tá tha, tix-usal, Sa.; dñe-tha, Tsim.; wa-dónak (?), Kut.;
ism-lash, M. Choe.
39. Ient, S. Hopi; íet-p, T.; dena-ní, Al. Ojib.; gñasa(?), Iro.
38. Tooth; si, St. P.; hutsu, H. Po.; da-ma(?), S. Hopi; tu-t, Lut. Kia.; dzeñ,
Hat.; sin, Kwak.; dñi-nis, dñi-ths, tsa, Sa.; eo, Maya; in(?), St. Dak.
40. Tling.; gyi-ky, Kwak.; ku-nan(?), Kut.; o, H. Po.; na-n(?), Tsim.
41. Iwe, Kwak.; wí, Ath. Be.; me-qt, Wiy.; bú-d, Al. Ojib.
39. Trail; inu, P. Cost.; na, Ath. Hu.; nan, Pat.; nap-gñas St. Dak.; sin, Lut. Kia.
pó, Pat.; po, Tanoan; p'o, Zap. (R); bo, P. Mat.; bej, Maya; mík-an,
Al. Ojib.
40. Tree, wood; tsu, teu-s, P.; teñ-t, Ath. Be.; dñá, Sa.; atsa, H. Chin.; teap,
St. Dak.; ití, M. Choe.
42. K'an, Tsim.; g'an, Tling.; kum tl, k'oi-q, koi-s, Sa.; hui, ka-le, H. Po.;
an-ku, Lut. Kia.
41. Water (cf. also to drink); aka, H. Chin.; oka, M. Choe.
42. par, Nahu.; p'o, Tanoan; nu, Zap. (R); me-n, P.; won, Kut.; pò (fluid),
Al. Fox; ní-bí, Al. Ojib.; ampu, Lut. Kia.; wa-n, Kwak.; mel, Y. Wap.;
awe-n, Iro.
42. White; í-ka, Ath. Hu.; ka-le, H. Po.; k'ate-l, Y. Wap.; kaíya, ko, ko-le, P.;
s-ka, St. Win.; ts-q, Sa.; eá, í-eta, S.
mák-s, Tsim.; pek, Sa.; pal-pal, Lut. Kia.
VERBS
1. to be: ka, St. Win.; -ga, Pat.; -ke, Y. Wap.; g'o, T. Yok.; a > *ga, Ath. Ka;
ken, H. Po.; gí, Tsim.; -ki, Kwak.; -e (?), Chin.; -ga, Kut.; k'ia, M. Thoe.;
-ka, Al. Ojib.; koh, Mox.
2. to bite: -gal, H. Ya.; g'a (with tooth), H. Po.; ka, Y. Wap.; g'at, Tsim.;
ka'w, P. Cost.; gñe-e, (Hín.; q'a-s, Kut.; g'ayaw (?), Pak.; k'is íí, M. Thoe.;
k'á (to eat), Sa.; ku, Maya; gaw, Zap.; qua (to eat), Nahu.; ka, Lut. Kia.;
íke-ks, Iro.; dk, Kut.; kaí, Mox.; ya (Nadene ga?), Ath. Ka.; g, Kwak;
ka-ts, Cal.
38 gu is a suffix; nap goes back to teap.

26. Imperative: -il, Sinsl; -la, Kwak; -la, Y. Wap.
27. Imperative: -m, Il, Sal; -ml, Il, Po; -me, Y. Wap; -p, P. Mat; -we, P. Mat;
- la, Tak; -m, Kut; -po, St. Dak; -en, Maya (em in other dialects).
28. Imperative: -t, P. Mat; -tl, Y. Wap; -de, -de, St. Win; -tla, Sa; -ne, Ath.
- Ilut; -de, Thing; -ta, Al. Ojib; -tsa, Wiy.
29. Imperative: -ka, Il, Was; -kt, Tak; -ga, Kwak; -kil, Kut; -nqa, Pat; -ga,
- St. Pom; -ka, Wiy; -ik, Al. (hooc; okam, Al. Ojib); -ke, -tad.
30. Im; -to, Tsim; -tl, Il, Po; -tl, Nah.
31. Im; -ye, Ath. (Nadene ge); -gt, St. Win; -ko, Nah; -ak, Il, Ka; -kut, -tad;
- ge, Iro.
32. Indefinite object: -ho, Y. Wap; -ho, Il, Po. (It; -ho, St. Win; -o, (?) Ath.
- Kat; -o, Al. Ojib.
33. Indefinite object: -na, Y. Wap; -na, Il, Po. (It; -wa, St. Win. (other dia-
- lects have na); -me, Nadene (S).
34. Indefinite tense: -m, P. Mat; -in, P. Yok; -m, P. Miv; -m, Tsim; -ml, -thin;
- ml, Kut; -nae, St. Win; -nae, Wiy; -du, Il, Po. (It; -ta, Il, Sal; -tl,
- Il, Ka; -ta, Y. Wap. (indefinite past); -tl, Pat (?).
35. Instrumental: -ma, Pat; -ma, Y. Wap; -muk, Il, Po; -muk, Il, Was; -iba,
- Al. Choc.
36. Interrogative: -ba, Y. Wap; -be, St. Win; -bi, P. Miv; -a, Tsim; -ho, M. Choc;
- in, Wiy; -m, Kwak; -ye, Ath. Po; -g, (?) Al. Po.
37. Interrogative: -ta, Y. Wap; -tee, Il, Po; -ee, St. Win. (other dialects have
- tee); -tl, P. Miv; -da, Nadene (S); -ta, M. Choc.
38. Interrogative: -ki, Il, Sal; -ki, Y. Wap; -ki, Chin. (Cf. 52.)
39. Iterative: -ma, Y. Wap. (again); -na, Ath. Hu.
40. Negation: -il, Sinsl; -la, Y. Wap; -la, Kwak; -al, Tsim; -la, Ath. Hu; -la,
- Al. (hooc; -la, Zap.
41. Negation: -ke, St. Win. (forms in k are practically universal among all tribes
- not using l).
42. Nominal suffix: -s, P.; -s, Y. Wap; -s, Co.; -s, Ath. Be; -s, -tsi,
- Pat; -teag, St. Dak; -s, Wiy; -sh, Lut. Ka.
43. Nominal suffix: -mme, Co.; -aia, Em, Sinsl; -m, Tak; -m, Mayat; -mme,
- em, Kwak; -ma, P. Mat; -am, Kut; -ma, Y. Wap; -pi, -pa, St. Dak;
- vi, mpt, Pat; -wi, Il, Ya; -ma, Al. Ojib.
44. Nominal suffix: -m, Sinsl; -nye, Co.; -a, Y. Wap; -il, Il, Sal; -a, Tak; -i,
- P. Yok.
45. Nominal suffix or prefix: -k, k, Ath; -P, H.; -Al, Kwak; -Sa, Kut, Iro.
46. Nominal suffix: -l, Tak; -l, Ath. Be; -l, Y. Wap; -l, H. (S); -l, Wiy; -ya,
- St. Dak. (other dialects have -ya, -la) ? -l, P. Mat; -l, -slat, Iro.
47. Nominal suffix or prefix: -mml, Sinsl; -ml, Il, Sal; -am, Il, Ka; -m, P. Mat;
- me (nominal particle), Iro; -in, Co.; -m, Tak; -am, Ath. Be; -m, ml, St.
- Dak; -l, -m, Mayat; -am, win, Al. Ojib; -in, Wiy; -m, Mixet; -a, Y. Yut; -a,
- Pat; -yam, St. Bil; -a, M. (hooc.
49. Off; -tsa, Il, (S); -te-a, Y. Wap; -tee, Ath. Hu; -sa, Tsim.

8 Isolated by myself.
9 Isolated by myself.
10 Isolated by myself.
11 Isolated by myself.
12 Isolated by myself.
13 Isolated by myself.

In conclusion it may be stated that the data adduced in the present paper clearly demonstrate, in the author's opinion, the genetic relationship of all Indian languages of North America.

MORPHOLOGICAL ELEMENTS

1. Agentive: -pe, P.; -pan, P. Mut.; pl. Pat.; -pl. St. Dak.
2. Agentive: -it, Sinsl.; -le, Y. Wap.; -xale, H. Po.; -al, Maya.
3. Act. in: -mpa, Pat.; -pa, Dub. Kwa.; -ba, H. Po.; -op, Y. Yu.; -pa, Chin.; -pat.
4. Causative: -ega, H. Po.; -ga, Kwak.; -ke, St. Win.; -ka, Thing.
5. Causative: -ta, Y. Wap.; -ta, P. Yok.; -t-, H. Sal.; -et, Co.; -it, (to make) Kut.
6. Causative: -st, Y. Wap.; -se, P. Mut.; -se, Tsim.
7. Comitative: -ka, Y. Wap.; -ko, P. Miv.; -kan, P. Mat.; -ka, Ath. Hu.
8. Continuative: -al, P. Yok. (other dialects have -al); -ala, Kwak.; -l, Tsim.
9. Diminutive: -it or -et, found in almost all languages.
10. Dubitative: -kua, Sinsl.; -gum, St. Win.; -kaue, P. Mut. (conditional); -k't,

- Tak.; -g'e, Tsim.; -ga, Kwak. (conditional); -gu, Pat. (irrealis); -kwen, Y. Wap.; -k-, Al. Fox. (sign of potential); -gont-ma, Al. Ojib.
11. Dubitative: -pl, H. Po.; -mp, Pat.; -mut, Tsim.; -ma, Y. Wap.
12. Duerative: -is, Sinsl.; -s-, P. Mut.; -x, Chin. (customary); -eg, Ath. Ka.; -s-, Y. Wap.; -s-, St. Win.; -z-, Iro.
13. Duerative: -mi, Pat.; -mi, P. Miv.; -ki-ma, H. Po.; -mi, Y. Wap.
14. Easily: -a, Tsim.; -a, Pat.
15. Entirely: -cu, Thing.; -cu, Pat. (very).
16. Five (as prefix): -d-, Ath. Hu.; -da, St. Win.
17. For: -ki, H. Po.; -ngt, Pat.; -ki, St. Win.; -ga (Nadene).
18. Frequentative: -ta, P. Yok.; -it, Sinsl.; -tan, Ath. Hu.; -ta, Wiy.; -to, Iro.
19. From: -mpa, H. Sal.; -pa, Chin.; -ba, Tak.; -bae, uwe, H. Was.; -awa, H. Po.
20. Future: -bae, H. Po.; -mpa, Pat.; -ma, P. Mat.; -pa, Y. Yu.; -op, Huave; -wi,

- wa, Al. Wiy.
21. Future: -to, H. Po.; -tox, Sinsl.; -tse-n, te-n, Saa.; -de-m, Tsim.; -u, Kwak.; -ta, P. Mat.; -te, Ath. Hu.; -ts-, Kut.; -te, St. Po.; -tel, M. Choet.; -ust, Yul.
22. Future: -st, Y. Wap.; -ega, H. Ka.; -ega, H. Was.; -hi, M. Choet.; -hi, P.; -s,
23. ga-, Al. Ojib.; -ka, Ath. Be.
24. Hortatory: -pe, P.; -me, Sinsl.; -op, Tsim.
25. Imperative: -ye, H. Was.; -l, P. Mat.; -e, Y. Wap.; -yo, St. Dak.; -ya, Pat.; -l, Wiy.

Win., Witun.; Yok., Yokuts; Co., Coos; Chin., Chinook; Tak., Takelma; Tsim., Tsimshian.
Sal., Salish.
St., Shoshonean; Pat., Southern Paiute; Nah., Nahuatl.
St., Siouan; Bil., Biloxi; Pak., Dakota; Pon., Ponka; Win., Winnebago.
Sinsl., Shawan.
Thing., Thingt.
Y., Yuki; Wap., Wappo; Yu., Yuki.
Zap., Zapotec.

18. to speak; na-t'e, Tak.; t'a, Maya; tsxa, Kut.; de-de, H. Po.; da-lx, Tsim.; ten-t, Sa.; ne, Zap.; uaan, Mixe; hi-t'e, Si. Win.; te, Al. Fox.
a, M. Choe.; ha, Si. Win.; ai-ngu, Pai.; ha, Y. Wap.; xay, P. Yok.; hao, Tsim.; xa, Kwak.; ke (?), Kut.; hi, Al. Fox.; a, Iro.
19. to split; da-k, H. Po.; ts'ä, Tsim.; ts'et, Kwak.; tea'e, Y. Wap.; at, P. Cost.; xa-its'iwi, Tak.; tsik, Kut.; elm-la, M. Choe.
20. to stand; dano, Wiy.; dji-teon, H. Po.; tö-s, ta-la, it-ma, P.; tla, Kwak.; tetli-qa, t'öwe-s, Sa.; hayit-k, Tsim.; te, Si.; -d-, Iro.; ya, yeu, Ath. Hu.; ya-l, H. Was.; ya^a, Y. Yu.
gya, Tling.; e-kät, Sa.; gawi-ska, Kut.; hika, M. Choe.
21. to step; t'eq, Tsim.; t'a, Y. Wap.; taL, Ath. Ka.; t'e-pa, Kwak.; teade, Si. Dak.; da (to jump), H. Po.; day, P. Yok.; haton-chi⁴⁰ (to jump), M. Choe.; la-l, Wiy.
22. to strike; tok, P. Miw.; -ti, Y. Wap.; te-gis,⁴¹ Si. Win.; doc, H. Po.; L'eq, Chin.; säag, Tak.; te, Zap. (R); t'a-tk, Iro.
23. to talk; haqa-l, Kut.; ka-n, Maya; koia, Mixe; hi-ge, Si. Win.; qa (sing) Pai.; ba qo, H. Po.; ka-l, Y. Wap.; ko, P. Cost.; 'a, Ath. Ka.; k'öai, Sa.; kul, Chin.; ka-n, Al. Fox.
24. to wait; pe, Si. Win.; pihe, Y. Wap.; eme-ni, P. Cost.; būo, Tsim.; k-pa, Kut.
25. to wash; tea, Y. Wap.; ita, P. Cost.; de', Ath. Ka.; teawa-te, H. Sal.; ts'al-ksen (?) (rinse out), Tsim.; ts'ë-xu, Kwak.; tzi-wan, Sa.; tseaya-ga'n, Tak.; tso-k, Kut.; ahe-fa (?), M. Choe.; tsiu, Mixe; teai, H. Chin.

PERSONAL PRONOUNS

1. I; ka-min,⁴² Kut.; ka-nni,⁴³ P. Miw.; xa, Tling.; -k, Yur.; ke, H. Sal.
ha, H. Po.; ha, Y. Wap.; ha, Si. Win.; i, Hai.; he, H. Sal.
sa, M. Choe.; ei, Ath.; -s, P. Mai.; -ts, Sa.
3. We; tu, Tling.; t'al-an, Hai.; dep, Tsim.; itamo, Sa.; nteai, Chin.; te-ne, H. Sal.; il, M. Choe.; -ta-, Nah.; -t-, Zap.; itl, Sa.; at, Wiy.; lö, hin (?), Si. Win.
2. I; an, M. Choe.; n, Tsim.; -en, Kwak.; nö, S.; nai-ka, Chin.; ni, P. Mai;
ne, hi, Si. Win.; n, Zap.; n, Mixe; n, Maya; -n-, Al.
4. Thou; ni-nko, Kut.; -no, P. Mai.; n, Ath.; ne, S.; n, H. Sal.; -no, S.
5. Thou; is, tei, M. Choe.; -fs, Kwak.; -s-, Iro.; -s, P. Miw.; e-, Si. Win.; -ts, Yur.; -s-, Cad.
6. Thou; mi, P.; ma, H. Po.; mi, Yu.; m, Tsim.; öm, S.; mu, H. Sal.; mai-ka, Chin.; m, Mixe; -m, Yur.
7. Thou; da, Tling.; r-, I-, d-, Si.; t-, Nah.; t, Maya; r-, Huave; -r, -l, -d, Zap.; -it, Wiy.

⁴⁰ chi is the causative.⁴¹ gis is a suffix indicating aspect.⁴² Probably a pronominal ending.⁴³ Pronominal suffix.

DEMONSTRATIVES⁴⁴

1. itū, S.; ta, P.; di, Nadene; du, Tsim.; de, Si.; te, Y.; t'ai-tl, Sa.; at, M.; to, Iro.
2. igi, S.; ka, P.; ye > 'gai, Nadene; gu, Tsim.; -k, Chin.; ga, Si.; gya, Kwak.; aqi, Sa.; ak, M.; ku, H. Po.; gu, Wiy.
3. pe, bami, S.; mē, Nadene; me, Si.; we, Y.; mih, M.; me, H. Po.
4. xe, P.; ha, Nadene; i, Iro.; x, Chin.; he, Si.; he, Y.; he, Kwak.; hēi-tl, Sa.; ho, M.; he, H.

NUMERALS

1. Three; dlku-nutl, Tling.; tlōq, Sa.; tolokot, P.; rik, Wiy.
xuts, teas, H.; k'atsta, Nootka; g'atlsa, Kut.; gwant, Tsim.; siātla, Sa.; team-ni, Si. Dak.; tuteina, M. Choc.; ndani, Lut. Kla.; asen, Iro.; n'iswi, Al. Ojib.
subu, sibo, H.; mo-l, Y. Yu.; la-pai, sa-pu, P.; pahi, S.
2. Four; dlū k, Tling.; riaw, Wiy.; ta-k, Ath. Hn.; tsōye, uti-t, ka-tuac, P.; ki-tea, H. Yuman; watea, tea-pap, S.; djop, Si. Win.; ushta (?), M. Choc.
tqū-lpq (?), Tsim.; qōs-ēna, Sa.; qātsa, Kut.
mō, Kwak.; mōs, Sa.

⁴⁴ This, that.

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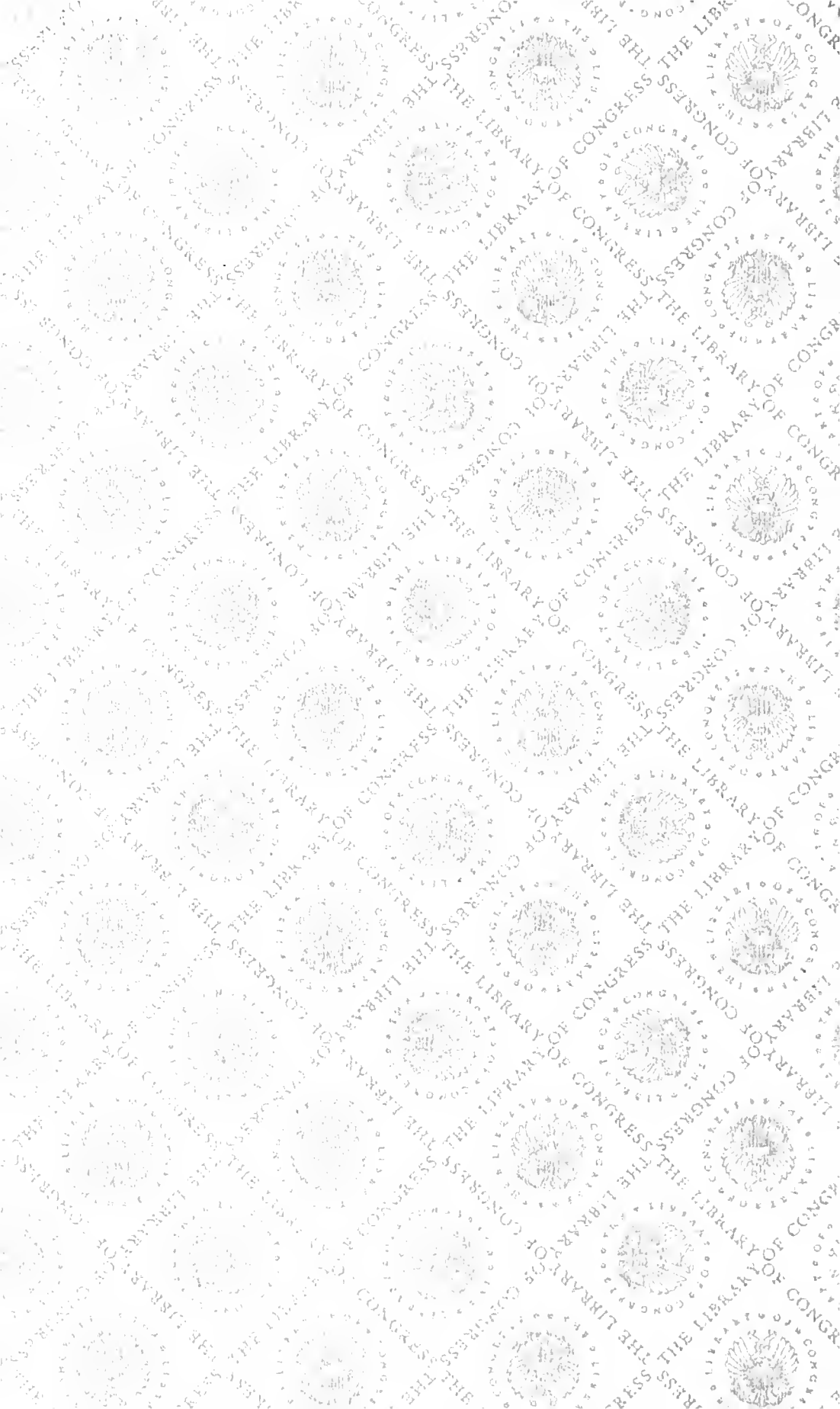
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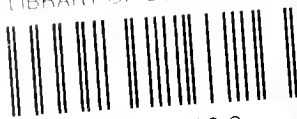
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